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ORIGINAL ARTICLES.

PARAXANTHIN AS A FACTOR IN THE ETIOLOGY OF CERTAIN OBSCURE NERVOUS CONDITIONS.

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THIS paper narrates the history of a patient that, at irregular intervals, had paroxysmal nervous attacks, the etiology of which was very obscure. After several months of careful study of this case I thought it possible that paraxanthin, a poisonous leukomain of the uric-acid group, by occurring in excess in the blood of this patient, might be the cause of these peculiar nervous attacks. Acting upon this idea, I procured eight liters of urine passed by the patient the day before, the day of, and some days after, a severe attack. From this urine 8 c.c. of a solution of paraxanthin was separated. One minim of this solution injected into the peritoneal cavity of a mouse produced symptoms much like those from which my patient suffered. The inference is drawn that we may have in the poisonous leukomains of the uric-acid group important and heretofore altogether overlooked factors in the production of certain nervous diseases and conditions.

That the reader may judge of the correctness of this inference, I give here a detailed history of the case and of the experiments upon which the inference is based.

Mrs. X., sixty-three years of age, is married, and the mother of six grown children. The family history is negative, except that "one sister had some nervous trouble of the heart." The patient was always a hard-working woman until a few years ago, when her grown daughters took charge of all the household affairs, and left her without occupation. She has always been rather stout, but of late years her hearty eating and inactive life have made her much stouter than before; she now weighs more than two hundred pounds, and spends most of the day in her easy chair; she has quite as capacious an appetite as she has ever had, and is now, as she has always been, especially fond of meat. From her earliest remembrance to September, 1892, she suffered from periodic attacks of "sick headache," but since this date she has not had a single characteristic sick headache; instead of sick headache she has had epileptoid attacks, which have continued to the present time at about the same interval as her previous attacks of migraine. It is the origin of

these epileptoid attacks, and of the previous megrim, that will especially interest us in the study of this case.

In September, 1892, she fell in her first "spell," and was carried into the house in an unconscious condition; after about thirty minutes she regained consciousness, but did not know anything about what had happened. For twelve hours after the attack she had a severe headache, which passed away, leaving her as well as usual. The doctor who saw her in this and many of her subsequent attacks thought in the beginning that they were apoplectic. She continued to have attacks similar to this one at intervals of about three or four weeks. In all of these "spells" she became unconscious, and remained so for from twenty to forty minutes, when she would regain consciousness, to find herself suffering from a severe headache, which would pass off in from twelve to twenty-four hours, leaving her quite well again. These attacks came on without apparent exciting cause, and with absolutely no warning; she feels as well, if not better, than usual just before the attack, and they not infrequently come on at night during sleep. A number of times the patient has been seized with an attack while on her feet, and has fallen heavily to the floor. On one occasion she bruised her face and shoulder by a fall of this kind. The after-headache became less and less severe as the time passed, until at the present time "there is almost no headache following a spell." After five or six months these epileptoid attacks were less frequent, so that five or six weeks would at times intervene between the attacks, but such a long interval was usually followed by an unusually severe attack, and not infrequently by two attacks within a few hours. In the interval between the spells the patient was quite well, except that she was somewhat mentally depressed with the certain knowledge that at the end of five or six weeks she was sure to have "another spell." On September 18, 1893, three days after a very severe "spell," she came to my office for the first time. At this visit I obtained her previous history, and I prescribed phosphate of soda, in teaspoonful doses after each meal. The next day I examined her urine and found no albumin, sugar, or casts.

On January 14, 1894, the attacks had continued at intervals of from three to six weeks, but I had not been fortunate enough until this day to witness one of these attacks. On this day she had two attacks, the first one mild, the second one severe. I saw her in the second. The first attack was at 8 in the morning, and occurred as usual without warning. It lasted from twenty to thirty minutes, and she had just regained consciousness when I reached the house. At this time she was restless, somewhat confused in mind, and complained of pain in the left shoulder; the

respiration was normal, the pulse 90, strong and regular. By this time I knew enough of the case to suspect that this mild attack would be followed by another and more severe during the day. I therefore arranged matters so that I could reach the patient within a few minutes should she have another attack during the day. At 7 P.M. the second attack occurred, and I had the good fortune to be present. This attack came on while the patient was in bed. She had remained in bed all day as a precautionary measure against a second attack, and all day she had seemed as well as usual, even up to the moment of her second attack. In the beginning of the attack the attention of the family was attracted by her peculiar, noisy breathing. She became unconscious at once, and her breathing very labored, her lips blue, the face congested; the arms and legs were straightened and stiffened, and remained rigid for eight or ten minutes, and then became relaxed and remained so during the remainder of the attack; the congestion of the face soon passed off, and the lips became red again, but the heavy, noisy, irregular breathing continued for twenty or twenty-five minutes, and did not become quiet and regular till just before the patient regained consciousness. The pulse in the beginning of the attack was strong, regular, and about 85 or 90 per minute; it gradually increased in frequency until at the close of the attack, which lasted forty minutes, it was 120 per minute; all the time, however, it was strong and regular. After the attack the pulse gradually returned to the normal. The pupils were the same on both sides; they reacted to light and were contracted till near the close of the attack, when they became normal. There were no muscular twitchings except in her right upper eyelid, and here they occurred for a short time only during the most severe part of the paroxysm. After the heavy breathing subsided the woman lay for about ten minutes apparently in a normal sleep; she then began to move, opened her eyes, was much confused, and was not able to understand what had happened to her. She was now very restless, complained of pain in her left shoulder and wished to be moved frequently; she also complained of being sick at the stomach (this has been a common symptom in her recent attacks, but she has never vomited in any of them). About one hour later she went to sleep and slept the greater portion of the night. The next day she did not feel sick, but remained in bed, and on the second day she was up and about as usual.

This attack was "just like all of her previous spells," and as for a special purpose I have described this attack in detail, I would call particular attention to the following points, which were characteristic of all her attacks:

1. Sudden onset of attack, no warning.
2. Muscles rigid, but not convulsed.
3. Labored, gasping, irregular breathing.
4. Unconsciousness from beginning to end of the attack.
5. Heart-action rapid, but regular and strong.

In the study of this case it seemed to me that the

peculiar attacks described had taken the place of the sick headaches of former years, and were therefore possibly of like origin. The case seemed to me to correspond in every particular to that class of cases which Alexander Haig¹ describes as being due to that very indefinite condition "the uric-acid diathesis." My patient was stout, inactive, a great meat-eater, had suffered from sick-headache all her life till these headaches were substituted by the explosive attacks described. Surely this was a typical "uric-acid case," and I decided to put her on the treatment recommended by Haig. I asked her to stop eating meat, to eat sparingly of eggs, and to take no wine or malt liquors. All other food, such as milk, bread, and all kinds of fruit and vegetables she might have *ad libitum*. The medical treatment consisted of a dose of Carlsbad salts each morning and 5 grains of piperazin three times a day. I placed her upon this treatment, not because I believed her symptoms due to "uricemia," but because whatever might be the cause of the symptoms, I hoped to get the same good results from treatment that Haig had reported. I also directed that all the urine should be saved and sent each morning to Mr. Otto F. Bange, a competent chemist, who very kindly took great interest in making a quantitative estimate of the urea and uric acid in this urine from day to day.

On February 25th the woman had two attacks, one mild and one very severe. I again had the good fortune to witness one of these attacks, and it was quite as severe as and in every way similar to the attack described. The treatment as outlined had been faithfully carried out, and the piperazin had been given a fair trial without apparent influence in either warding off or in modifying the severity of the attacks. The influence of the piperazin on the excretion of urea and uric acid is shown in the following table. In all of these examinations the specimen of urine examined was a part of the whole twenty-four hours' urine, except in the examinations made on the 24th, 25th, and 26th of February. The amount is calculated to 1000 c.c. of urine, which was the average amount passed by this patient in twenty-four hours.

From following table one sees that the amount of uric acid was somewhat increased during the first ten days of the treatment, and was somewhat diminished during the last days of the treatment. But the increased excretion of uric acid under this treatment did not in any way influence the frequency or severity of the attacks. I would call special attention to the amounts of urea and uric acid in the specimens of urine examined on the 25th and 26th of February, just before and just after the severe attacks of February 25th.

Urine, February 25th, 6 A.M. Just before attack, urea, 6.00; uric acid, 0.25.

¹ "Uric Acid."

Urine, February 25th, 9 A.M. Just after first attack, urea, 7.00; uric acid, 0.55.

Urine, February 25th, 5 P.M. Just before second attack, urea, 8.00; uric acid, 0.40.

Urine, February 26th, 9 P.M. Just after second attack, urea, 5.00; uric acid, 0.15.

Urine, February 26th, 8 A.M. Next morning after attack, urea 12.00; uric acid, 0.25.

Date.	Urea in 24 hours.	Uric acid in 24 hours.	Medicine.
January 19	12.23	0.57	Piperazin
" 20	13.10	0.55	15 grains.
" 21	10.23	0.35	"
" 22	14.00	0.50	"
" 23	15.00	0.65	"
" 24			
" 25	14.00	0.65	"
" 26	13.50	0.53	"
" 27	12.50	0.50	"
" 28	15.00	0.67	"
" 29	13.9	0.82	"
" 30	14.25	0.45	"
February 1	10.00	0.25	"
" 2	12.00	0.36	"
" 3	9.00	0.30	"
" 4	8.00	0.40	"
" 5	9.00	0.36	"
" 6	10.00	0.50	"
" 7	14.00	0.50	"
" 11	10.00	0.25	"
" 13	12.00	0.35	"
" 15	11.00	0.33	"
" 16	10.00	0.25	"
" 25, 6 A.M.	6.00	0.25	"
" 25, 9 A.M.	7.00	0.55	"
" 25, 5 P.M.	8.00	0.40	"
" 25, 9 P.M.	5.00	0.15	"
" 26, 8 A.M.	12.00	0.25	"

The study of these figures is of considerable interest, as they clearly show that the excretion of urea is diminished and the excretion of uric acid increased during these attacks. The proportion of uric acid to urea is therefore greatly increased. Haig believes that the symptoms in just such cases as this may be explained upon the hypothesis that the uric acid occurs in excess in the blood and causes these symptoms by its action on the nervous centers, and that with the rapid elimination of the uric acid the blood is relieved of this excess and the symptoms subside. But Haig's hypothesis seems to me quite inadequate to explain the symptoms in the case reported, for the simple reason that *uric acid and its compounds are non-toxic*.

Bouchard¹ injected "experimentally into the blood thirty centigrams of uric acid for each kilogram of the animal without apparent accident." In one instance he injected sixty-four centigrams for each kilogram without injury to the animal. When death did occur, following excessive quantities of uric acid, he was convinced by his observations that death was alone due to the excess of the vehicle. Roberts² says that "uric acid and its compounds are deleterious simply because of their sparing solubility in the bodily media." As all experimental evidence is opposed to the idea that

uric acid could produce such a group of symptoms as were presented in this case, I was impelled to search elsewhere for the cause of these attacks, and in doing so I was led to inquire into the possibility of leukomain-poisoning as a cause of the nervous paroxysms. The reasons that determined the research, in spite of the fact that the uric acid leukomains had been found in normal and many pathologic urines, in such very minute quantities as to make it highly improbable that they could enter as etiologic factors in the production of disease, were as follows:

1. In this case there was an increase in the excretion of uric acid during the attack, and Haig¹ has shown that this increased excretion of uric acid is a constant accompaniment of certain forms of sick-headache and epileptoid attacks. It therefore seemed possible that along with the increased excretion of uric acid there might be an increased excretion of uric-acid leukomains, as these bodies belong to the same chemical group and are probably formed by the same or a like metabolism.

2. It seemed altogether possible that a perverted metabolism or a defective elimination might result in these leukomains being present in the blood in abnormal quantities not at all indicated by the amount of uric acid excreted.

3. Paraxanthin, the most poisonous leukomain of the group, when injected into mice, produces symptoms much like the epileptoid attacks which this patient has. According to Salomon,³ it produces dyspnea and rigor mortis, or stiffening of the muscles.

For the foregoing reasons I thought it worth while to inquire whether or not paraxanthin was excreted in excess in the urine during these attacks. It was decided to make the experiment as clean as possible by separating from the urine only the paraxanthin; the other xanthin compounds, some of which are poisonous, were gotten rid of.

The eight liters of urine used for the investigation were passed just before, during, and following the severe attack of the 25th of February. Boric acid was added to the urine while it stood, to prevent fermentation. This urine was delivered to Mr. Otto Bange, the chemist, with the request that he would abstract from it the paraxanthin it contained; but as this process is tedious, requiring some weeks for its completion, the patient was in the meantime looked after in the following manner: The piperazin and Carlsbad salts were discontinued, and the patient was advised to continue the same diet, ab-

¹ "Uric Acid."

² Ber. d. Chem. Gesellsch., 1878, 1883, and 1888; Archiv f. Physiol., 1882, 1884; Zeitschr. f. klin. Med., 1884; Zeitschr. f. Physiol. Chem., 1887, 1889; Arch. f. Anat. u. Physiol., 1878, 1887; Verhandlung d. Phys. Gesellsch. zu Berlin, 1880-81.

¹ "Auto-intoxication in Disease," 1894.

² "Uric Acid, Gravel and Gout," 1892.

staining from meat as before, and to take a teaspoonful of phosphate of sodium in a cup of hot water each morning, and ten grains of salicylate of sodium three times a day; this treatment was continued for one week. During the second week only two ten-grain doses of salicylate of sodium were given each day. During the third week only one dose per day was given, and during the fourth week no medicine was given except sodium phosphate. After this the patient again took two ten-grain doses of the salicylate per day.

On April 4th the woman had another attack, but it was not nearly so severe as those of five weeks before. Below is given a table showing the amounts of urea and uric acid excreted from day to day during the preceding three weeks:

(The amount is calculated to 1000 c.c. of urine, the average amount excreted in one day.)

Date.	Urea in 24 hrs.	Uric acid in 24 hrs.	Medicine, per day.
March 8	14.00	0.60	Acid sal., 30 grains.
" 9	11.00	0.35	" 30 "
" 10	10.00	0.25	" 30 "
" 11			" 30 "
" 12	9.00	0.35	" 30 "
" 13	7.00	0.23	" 30 "
" 14	6.00	0.25	" 20 "
" 15	7.00	0.40	" 20 "
" 16	8.00	0.20	" 20 "
" 17	6.00	0.10	" 20 "
" 18	9.00	0.12	" 20 "
" 19			" 20 "
" 20	7.00	0.20	" 10 "
" 21	6.00	0.25	" 10 "
" 22	11.00	0.40	" 10 "
" 23			" 10 "
" 24			" 10 "
" 25	7.00	0.10	" 10 "
" 26	8.00	0.15	no med.
" 27	7.50	0.23	"
" 28	10.50	0.40	"
" 29	9.50	0.36	"
" 30	9.00	0.28	"
" 31	8.00	0.34	"
April 1	6.50	0.14	Acid sal., 20 grains.
" 2	7.50	0.15	" 20 "

It will be seen from this table and the previous one that the no-meat-diet very greatly diminished the amount of urea excreted. With the exception of occasional variations the amounts of urea in the urine progressively diminished after the patient, three months previously, had been advised to approach as nearly as practicable to a vegetable diet. The amount of uric acid in the urine also during this time progressively diminished. This was no doubt in part due to the action of the medicine, and it is also a noticeable fact that the amount of uric acid excreted fell more rapidly under the salicylate of soda than under the piperazin treatment. The patient was again advised to continue the same diet, and also to continue the sodium salicylate, ten grains twice a day, with a dose of Carlsbad salts each morning.

On April 25th the patient had one light attack, which was less severe than the one three weeks before.

On April 27th, the woman had recovered quickly from the slight attack on the 25th, and was as well as usual. It was the opinion of all who have observed the patient during the past few months that she was now better than she was four months before; the attacks were comparatively mild compared to what they were then. It seemed, therefore, altogether probable that she had been improved by the treatment.

With this history of the case we can now return to the study of the etiology of these attacks, and to the inquiry whether or not this patient has an excess of paraxanthin in her urine, and, if so, could paraxanthin-poisoning account for the symptoms in her case?

Let us first inquire what is paraxanthin. Paraxanthin is one of the poisonous leukomains of the uric-acid group, and of all this group it is the most poisonous. According to Salomon, who was the first to isolate this substance, its physiologic action is as follows: In mice the reflexes are increased to a tetanus, followed by a rigor-mortis-like contraction of the muscles, and dyspnea is a constant symptom. The formula for paraxanthin is $C_7H_8N_4O_2$. It is a noticeable fact that paraxanthin, xanthin, and gerontin, the most poisonous leukomains of this group, all have two atoms of O, while uric acid ($C_5H_4N_4O_8$) has three atoms of O. Uric acid, it would seem, is therefore a more highly oxidized body than these poisonous leukomains.

Salomon also found that paraxanthin occurred in normal urine in such minute quantities that its poisonous properties were lost in dilution. From 1200 liters of normal urine he obtained only 1.2 grams—that is, one milligram of paraxanthin for every liter of urine. It would, therefore, take one-half a liter of urine to yield one-half a milligram of paraxanthin, which is the poisonous dose for mice.

From the 8 liters of urine previously spoken of, Mr. O. F. Bange isolated the paraxanthin by the method of Salkowski and Salomon.¹

¹ The method in brief is as follows:

Method.—The phosphates are precipitated with ammonium hydroxide; after twenty-four hours the urine is filtered or decanted from the precipitate, and a 3 per cent. solution of nitrate of silver is added to it, about 0.5 or 0.6 of silver being used for each 1000 c.c. of urine. It is, as a rule, necessary to add more ammonia to hasten precipitation; after precipitation the precipitate is washed six or eight times with distilled water by decantation; the silver compounds suspended in water are then decomposed with hydrogen sulphide, the current of H_2S is made to pass through the water in which the compounds are suspended for hours; the liquid is now decanted or filtered to separate it from the precipitate, and evaporated down to about 1000 c.c. if 6000 c.c. of urine have been used; the remaining uric acid is thereby separated; this liquid being filtered, ammonia is again added; after twenty-four hours it is again filtered and precipitated with silver nitrate, the silver being added as long as precipitation occurs; the supernatant liquid is removed by decantation, and the precipitate is transferred to a filter and allowed to stand for twenty-four hours in a dark place. It is then dissolved in hot nitric acid of 1.1 specific

By this method there was obtained 8 c.c. of a very concentrated solution of paraxanthin. From a drop of this solution on a glass slide characteristic paraxanthin-plates and needles crystallized out, and a drop of the solution in a solution of potassium hydrate gave the white precipitate which is characteristic of paraxanthin.

The effect of this solution on mice was next studied, mice being chosen for the experiment because they were known to be susceptible to paraxanthin poisoning, and because they were inexpensive and easily obtained.

The first experiment, on April 12, 1894, was with a full-grown house-mouse. *Time*, 5.35 P.M. Two minims of the solution were injected into the peritoneal cavity; after thirty seconds the mouse was very nervous, trembling, jerking when the sides of the can in which it was held were touched; this excitability increased almost to a tetanus, when, at the expiration of two minutes, the mouse jumped into the air and fell on its side, and after a few convulsive movements stiffened and died. The post-mortem examination showed no evidence of a needle-wound in the peritoneal cavity.

In this experiment the dose was so large that the paraxanthin proved so rapidly fatal that opportunity was not given to study the symptoms. For this reason I decided that in the next experiment I would introduce as small an amount of the solution as possible, and surely not more than one minim was used.

The second experiment was at 5.45 P.M. One minim of the same paraxanthin-solution was introduced into the peritoneal cavity of a full-grown, gray mouse. At 5.48 P.M. the mouse was very nervous, jumped spasmodically when the sides of the tin-can were touched; this reflex excitability continued until it was almost a tetanus. At 5.50 the mouse fell in convulsive movement, and almost immediately stiffened in a clonic tetanic contraction of all the muscles. This muscular tension was kept up almost uninterruptedly for three hours, when the mouse died. Toward the close of this period the muscles were relaxed, except at the onset of the attack there was no movement resembling a convulsive movement. From the beginning to the end of the attack there was dyspnea and a gasping respiration.

gravity to separate the hypoxanthin. If working with 4 liters of urine, from 60 to 70 c.c. of acid will be sufficient. After two hours, filter and carefully add ammonium hydrate to neutralization, and for the third time xanthin and paraxanthin are separated, the precipitate washed, suspended in water, and again decomposed with hydrogen sulphid. It is filtered while hot, and the filtrate evaporated to 50 c.c. and a little ammonium hydrate is added, and after twenty-four hours the last traces of phosphates and oxalates will be precipitated; the filtrate is again evaporated on a sand bath, and when the liquid begins to get turbid evaporation is suspended; the next day the xanthin will be found in a mass at the bottom of the beaker; filter the liquid and evaporate to a few c.c.—from 10 to 20—and one has a concentrated solution of paraxanthin. If the solution be very concentrated, paraxanthin will crystallize out.

tion, which after a time was irregular. The heart's action was regular and apparently not affected by the poison.

By these, and many other experiments of which they are a type, it was proved that the substance separated from the urine, which responded to the chemical tests for paraxanthin, also when injected into mice produced the physiologic effects of paraxanthin.

The symptoms which are most characteristic of poisoning by this substance in the mouse are:

1. Nervousness, extreme reflex excitability—almost a tetanus.

2. Clonic, tetanic stiffening of the muscles, followed by muscular relaxation. (Convulsive movements usually absent.)

3. Dyspnea, orthopnea, asphyxia. The gasping respiration is probably the most characteristic symptom.

4. Heart unaffected.

According to Salomon one-half of a milligram will produce these symptoms in a mouse. As one minim of the 8 c.c. of concentrated solution of paraxanthin obtained from 8 liters of urine produced these symptoms, it is reasonable to conclude that this one minim contained one-half a milligram of paraxanthin, and that the 8 c.c., or 120 minims of solution contained 60 milligrams of the solution. As only one milligram of paraxanthin is found in one liter of urine, in the 8 liters of urine from this case the paraxanthin was increased as 60 to 8, or nearly eight times. From another specimen of urine, 8 liters, the paraxanthin was separated and evaporated to 8 c.c. That this solution contained paraxanthin was demonstrated by the chemical tests, and that it contained paraxanthin in very small quantities was shown by the experiment that 10 minims of the solution injected into the peritoneal cavity of a mouse did not produce the symptoms of paraxanthin-poisoning.

Upon the foregoing evidence I conclude that paraxanthin occurs in great excess in the urine passed by this patient during the epileptoid attacks already described, and that it is reasonable to believe that paraxanthin-poisoning is a potent factor in the production of these attacks.

¹¹⁷ BROADWAY.

The Ohio State Medical Society, at its last meeting, held recently, elected the following officers for the ensuing year: President, D. N. Kinsman, M.D., Columbus; First Vice-President, C. O. Probst, M.D., Columbus; Second Vice-President, M. Stamm, M.D., Fremont; Third Vice-President, J. C. Buckner, M.D., Cincinnati; Fourth Vice-President, Robert Peter, M.D., Canal Dover; Secretary, Thomas Hubbard, M.D., Toledo; Assistant Secretary, Charles Graefe, M.D., Sandusky; Treasurer, James A. Duncan, M.D., Toledo. The next meeting is to be held at Columbus, May 15, 1895.

ACUTE APPENDICITIS.

BY JOHN B. DEAVER, M.D.,
OF PHILADELPHIA.

With Remarks in Opening the Discussion.

BY J. M. DA COSTA, M.D.

(Continued from p. 540.)

PROGNOSIS.

THE prognosis of appendicitis depends not only upon the character of the attack and the complications which may supervene, but upon the character of the treatment instituted.

Our present knowledge gives early operation the first place in the treatment. Many cases of simple catarrhal appendicitis subside under careful and rational medical supervision; still, in the great majority, this primary attack only leaves the patient predisposed to another which is more severe and more dangerous than the original one. In my last series of cases, forty-five of which I have operated upon, forty-two had had previous attacks. In other cases which start up acutely there is over the diseased organ a gradual decrease in all the symptoms excepting tenderness, thus leaving the patient in a subacute condition. In this subacute condition the appendix may, and frequently does, go on to perforation and gangrene, without a corresponding increase in the symptoms. When the appendix has been removed a second attack is an impossibility, so that I believe that operation gives the patient the only chance for permanent recovery.

When the collection of pus is circumscribed, the general peritoneal cavity being walled off, the prognosis is generally favorable. If the general peritoneal cavity be early infected the prognosis is grave, although if operation be at once resorted to there is a possible chance of recovery; while if the infection be late or operation deferred, a fatal termination is invariably the rule. When a circumscribed appendiceal abscess ruptures and evacuates its contents into the bowel, recovery usually follows, while evacuation into the bladder is fatal in about 50 per cent. of the cases. The age of the patient is a decided factor in the prognosis, as the disease is more fatal in the very young, on account of the lessened powers of resistance.

COMPLICATIONS AND SEQUELÆ.

By far the most important and frequent complication of appendicitis is peritonitis. Inflammation or phlebitis of the right iliac vein, or thrombosis associated with edema of the corresponding lower extremity, is a complication sometimes met with in the localized suppurative variety of appendicitis, and if a fragment of the thrombus be carried along the general circulation, this may result in foci of septic pneumonia or septicemia.

If the appendix lies over the iliac bloodvessels, and undergoes ulcerative destruction, it may cause necrotic change in the walls of the bloodvessels, and result in fatal hemorrhage. Abscess of the liver, purulent collections in the pleura and pericardium, may also result from portal thrombosis or directly from the general circulation. Appendicitis may be a complication or an accompaniment of hernia. When a localized appendiceal abscess ruptures into the bowel or into the bladder, there is renewed infection from these avenues. Fecal fistula is a frequent sequel of appendicitis.

TREATMENT.

I have made no attempt to formulate a rule by which we are able to discriminate which class of cases will terminate as simple appendicitis, or go on to perforation or gangrene. There are some who claim to be able to foresee which cases of appendicitis will eventuate in recovery or assume the gangrenous type, or to recognize the onset of this dangerous complication. This is, I believe, an assumption which cannot be substantiated by experience. My experience is that the surgeon is called in so often to see cases in which the unfortunate patient, according to the attending physician's statement, has been doing well up to a few hours previously, only to find the evidences of general septic peritonitis, which invariably foretells the almost inevitable result. Is it to share the responsibility? Certainly not with the hope that operation promises recovery. Again, why should we trust to chance when we have positive means of relief in immediate operation, if the treatment to which I shall refer further on fail to accomplish the desired end? Granting that the majority of the cases of simple appendicitis will temporarily recover under careful and well-directed medical treatment, are we justified in allowing the minority to perish when we have positive means at our disposal to prevent the fatal issue?

The physician who has had the opportunity to observe many cases of appendicitis cannot but have impressed upon his mind the lesson of cause and effect—the cause being the primary attack, the effect the death from a subsequent attack.

While some may claim that they have never seen a recurrence, there are many who will bear witness to the fact that they have frequently seen subsequent attacks. My friend, Dr. J. M. Da Costa, recently related to me the history of a case in which the patient had had forty-seven previous attacks; in the forty-eighth attack he asked the surgeon who was in attendance with him to operate. The operation not only terminated favorably, but demonstrated the presence of a collection of pus within the appendix which was on the verge of rupture.

When advising operation I have been met by the statement from the attending physicians that they have seen patients recover from several recurrent attacks, and presenting this as an argument against operation. The patient just referred to, who had forty-eight attacks, certainly demonstrates to the unprejudiced mind that one more attack would most likely have resulted in rupture and septic peritonitis.

While this paper is upon the subject of "Acute Appendicitis," I may be permitted to digress to make the statement that of the thirty cases of chronic appendicitis upon which I have operated successfully this winter, the lesions present in the majority of the appendices demonstrated most clearly that an acute attack would most probably have resulted disastrously.

If operation is justifiable in the minority of cases, which without operation are fatal, is it not equally justifiable in all cases, considering that the majority which recover under well-directed medical treatment suffer subsequently from recurrent attacks, and many perish in the last attack?

In my experience operation, performed under strict aseptic precautions by a surgeon familiar with the anatomy and the technique of the abdominal cavity, and immediately following the establishment of the diagnosis, will give a mortality practically *nil*.

If the medical man had the same opportunity to observe the ravages of an appendiceal inflammation *ante-mortem*, as has the surgeon, particularly those who have operated many times, he would certainly be convinced of the importance of early operation; hence, I can understand the position of the conservative physician.

I will ask in advance those who will take exception to early operation, if they have ever had the opportunity to observe the treatment I advocate. Anyone who has seen a gangrenous appendix removed before perforation, and before a localized abscess or a general septic peritonitis has developed, could not fail to sanction prompt interference.

The first indication to be fulfilled in a case of simple appendicitis, or even of a supposed case, is to obtain free action of the bowels. This is best accomplished by the administration of castor-oil, followed by salines, preferably Rochelle salts, or, if the stomach is not tolerant to salines, small doses of calomel. Free evacuation of the bowels—not drastic purgation—serves the purpose of clearing the alimentary canal of all foreign and irritating substances, such as particles of undigested food, etc., and relieves the congested bloodvessels, thus modifying the degree of the subsequent inflammation. Again, this course fulfills a most important indication in having the bowels in the most favorable con-

dition for operation in the event of its necessity. I cannot emphasize the importance of this part of the treatment too strongly, as upon it, I believe, largely depends the chance of the patient's recovery. Certainly in my experience, the bulk of patients I have seen recover without operation have been those in whom this was most thoroughly carried out, and in the cases operated upon the largest percentage of recoveries have been those in whom the bowels were not allowed to be confined. The pain in appendicitis, which is colicky in nature, is due first to the muscular contraction of the appendix and the bowels, and in the majority of instances is provoked by irritation within both; therefore, is not the emptying of the intestines of their irritating contents urgently called for? Is not the bowel, in other words, asking to be relieved? This being so, will not purgatives take the place of an anodyne, a hypodermic of morphin, which is often and indiscreetly given? The best anodyne consists in repeated doses of salts or calomel, which do more than any preparation of opium can do, both relieving and removing the cause of the pain. Free purgation should be continued throughout the attack, sufficient to keep the contents of the bowels in a liquid state as long as the tenderness and uneasiness in the appendix exists.

Absolute rest in bed, with careful feeding, should be enforced. Turpentine in the form of hot stups should be applied, and will relieve the distention and pain in addition to acting as counter-irritants. The use of leeches and blisters is advocated by many in preference to purgation, to accomplish the depletion of the circulation. This is not in accord with my experience. Blisters are particularly objectionable, in that they macerate the superficial layer of the integument, increase the patient's discomfort, do not accomplish the results afforded by salines or calomel judiciously administered, and, one of the strongest objections against their use, they make a septic field for operation. This latter is also true of leeches.

Opium should not be given; it usually masks the character of some of the most important symptoms. Absolute rest in bed, with careful feeding and mild purgatives, generally relieve these cases within thirty-six or forty-eight hours. In those cases in which the symptoms do not abate, and the disease seems to be progressive, the appendix should be removed. When opium has been administered and the progressive character of the case is doubtful, it is better to err upon the side of safety, and remove the appendix at once. The condition present is usually beyond the powers of Nature to remedy, while in the hands of a surgeon who pays strict attention to the aseptic details of the operation the latter entails little risk to life—less than that which is involved

in even a mild attack of appendicitis that remains stationary, with all its possibilities of lymphangitis, infection of the peritoneal cavity, retained mucus within the appendix, and rupture of the latter into an unprotected peritoneal cavity, or ulceration and perforation from inspissated fecal matter, imprisoned by constriction within the cavity of the appendix, or from a gangrenous condition alone.

When the disease has gone on to a stage of pustulation, and we are positive that such a condition exists, usually shown by persistent pain and tenderness which is intense on deep pressure, no time should be lost in opening the abdominal cavity, evacuating the pus, and removing the appendix at the same time. The less medication these cases receive the better, and the use of salines is especially contra-indicated. The limiting wall of the abscess-cavity is delicate, and the increased peristalsis set up by the saline may be sufficient to rupture the abscess-wall, with resultant leakage of its contents into the peritoneal cavity and subsequent peritonitis.

In all cases in which the disease is not of a mild type at the outset, as indicated by the symptoms, I believe that operation is the only treatment offering any positive means of relief, and that it should be instituted as soon as the diagnosis is established. Salines, and this is more true of opium, are especially contra-indicated in this class of cases, in which there is no certainty as to the condition of the appendix at its attachment to the cecum.

Rectal injections are contra-indicated for the same reason. I have recently seen a case in which a gangrenous appendix was forced away from its attachment to the cecum by a copious injection which was emptied into the abdominal cavity, followed in a few hours by a septic peritonitis. Prior to the injection the patient's abdomen was flat, the temperature normal, and the pulse good.

Great care should be exercised when opening these abscess-cavities or infected areas that the general peritoneal cavity be not infected. The manipulation should be very gentle, as a communication may readily be established. With a good assistant, who with gauze compresses is able to keep the field of operation well isolated from the rest of the peritoneal cavity, and also to keep the small intestines out of the way, the operation at this period of localized peritonitis, with or without sero-purulent collections, is both safe and advisable. It is almost impossible to avoid breaking away some of the adhesions, but with care the appendix can be removed without infecting the peritoneal cavity. After removal the general peritoneal cavity can be sealed off by properly packing with iodoform-gauze previously sterilized.

When the appendix has been separated from the cecum at its basal attachment by a gangrenous

inflammation, if the opening in the cecum is not too large and the surrounding area not devitalized, the margins of the openings should be cut away and the opening closed by the Lembert suture. On the other hand, if the opening be large, and the adjacent area is involved in this gangrenous process, it is better to wall off this portion of the cecum, insert a glass drainage-tube into the abscess-cavity, and pack iodoform-gauze around it, thus sealing it off from the peritoneal cavity. A fecal fistula will almost always follow, but this usually closes spontaneously. I have known cases, after the abscess-cavity has simply been opened and drained, to recover with a fecal fistula, the fistulous tract communicating with the tip end of a patent appendix. This demonstrates the importance of removing the appendix when the abscess-cavity is opened.

When the abscess-cavity is postcolic, the incision should be made through the outer layer of the ascending mesocolon, the appendix removed, and aseptic drainage established through the loin. In the postcecal appendiceal abscess, especially if the appendix be the seat of gangrene, there is great danger of infection of the liver through the venules of the portal system which are in relation with the main layer of the ascending mesocolon. When the appendix runs over the brim of the pelvis and extends into the pelvic cavity, it is always better to drain with a glass drainage-tube, placed in the most dependent portion of the pelvis. In case a secondary abscess should form and occupy the recto-vesical space in the male, it is better to drain it through the rectum, using a larger trocar and canula to penetrate it, and then insert an English catheter through the canula, while if it occupy the recto-uterine space, it should be emptied through the vagina. I think it is better to resort to this procedure than to reopen the original wound or open through the linea alba, on account of exposing the peritoneum to a second infection.

I have not been able to see the advantage of the linea alba as an avenue through which to remove the appendix, as advised by some operators.

From the fact that the appendix in its normal position lies in the right iliac fossa, the most direct route to it is through the right semilunar line or immediately to either side of it. By carrying the incision either through the rectus or the internal oblique and transversalis muscles, there is no doubt that the wound can be closed with greater security against the occurrence of a hernia, whether a series of buried sutures be used or not.

There is no question but that the Trendelenburg position offers advantages in certain cases, and that the evacuation of pus or drainage of an abscess, and the subsequent irrigation, are favored by turning the patient over on the affected side.

It has been my intention not to cite any of the numerous cases I have records of, knowing how tiresome this is to an audience, but while writing upon the treatment of this paper I was called to see a case which so clearly supports the position I hold relative to early operation, that I will beg of the Fellows the privilege of reporting it.

Friday night, April 27, 1894, Dr. Prendergast was summoned to see Mrs. O., thirty-five years of age, who on account of acute abdominal pain, accompanied by nausea, general abdominal tenderness, and constipation, was suddenly taken to her bed. The pain was so severe as, in Dr. Prendergast's opinion, to call for a hypodermic of morphin. Upon careful inquiry a history of one similar attack, much less severe in character and occurring four months ago, was obtained. On the following day, Saturday, the bowels having been moved by purgatives, the patient thought herself to be more comfortable. On Sunday the pain was more severe and was referred to the right iliac fossa; there was pronounced general abdominal tenderness with decided tympanites; the pulse was 100; the temperature 102° . The patient was referred to me for admission to the German Hospital. Upon being given a statement of the case over the telephone, I requested the patient to be prepared for operation. The examination of the pelvis was negative. Examination of the abdomen showed very evident general peritonitis, and excessive tenderness to pressure over the site of the appendix. Operation demonstrated a small peri-appendicular abscess; an appendix which held a southwest position, turned upward and outward upon itself, gangrenous at its distal extremity to the extent of an inch, and adherent to the floor of the right iliac fossa by its tip. The mesentery of the appendix was so infiltrated and thickened as to resemble a second appendix. The general peritoneal cavity was not shut off. The pus was evacuated, followed by irrigation and removal of the appendix. The morning after the operation the temperature was 98° and the pulse 84. The patient was passing wind and the abdominal distention was rapidly disappearing. On Tuesday morning the improvement continued. On Wednesday the pulse was 68, the temperature normal, and the bowels moved the previous night. The abdomen was flat and improvement was uninterrupted.

In opening the discussion, Dr. J. M. DA COSTA said: I rise with some diffidence to speak on a subject of this kind; it is so largely surgical, and so many distinguished surgeons are present, that I am aware that I am addressing an audience of experts. But though the condition is undoubtedly in the main a surgical one, before the case gets into the hands of the surgeon the physician sees it, and to him as well as to the surgeon belongs the responsibility of declining operation or of urging operation. I shall not take up time by going into the discussion of the whole subject, but merely speak of some matters that experience has made clear to me; an experience shared in many instances with noted surgeons, but of which I may summarize the result: from a general and purely medical point of view.

In the first place, there is the question of diagnosis, which, after all, belongs more to the physician, as he sees the case early, and he has to decide whether or not it is one of appendicitis. I want to say distinctly that with what Dr. Deaver has so clearly stated of the valuelessness of the thermometer in the recognition of gangrenous or purulent appendicitis, I am in accord. I could cite examples of gangrenous appendicitis, with pus around the appendix, in which the temperature was almost normal. In one instance which I saw with Dr. Morton, gangrene of the whole appendix was found, but at no time did the temperature go above 99.1° . I should also like to say that while the thermometer does not help us, the pulse does not do so much more, and that, after all, it is by the whole history, and particularly by the kind of pain, that we make up our minds as to what is the matter; I was almost going to say by the locality of the pain, but this is true only up to a certain point. In one of the most striking cases with which I was ever connected the pain was over the liver. It is sometimes epigastric; in the case that I saw with Dr. Deaver the pain was on the left side, and most puzzling it was to determine this to be an instance of appendicitis. Looking at the admirable paper of Dr. Fitz, I find that pain in the left iliac fossa occurs in only 1 per cent. of the cases. There is one seat of pain rarer, namely, pain in the hip and groin, which is so rare that it happens in only $\frac{1}{4}$ of 1 per cent. The seat of pain, therefore, must not mislead us. It need not be in the right iliac fossa.

Another question in diagnosis is as to the presence of pus. If we only had a sure test indicating the presence of pus in appendicitis, it would be a most valuable addition to the whole subject; but we have not. I have already said that the thermometer does not help us. The sense of resistance and the fulness are of some value; so is severity of recurring pain. But the great tenderness that exists in cases in which pus is present is, perhaps, the most certain sign; yet it is not an absolute sign. In rectal examination with the view of detecting a swelling, I have been disappointed except when there is a considerable collection of purulent material. If I were asked what single sign is there of pus in appendicitis, I should say that the only thing, barring the marked tenderness, that comes near being a distinctive sign is the great variability of the symptoms. You will find the pulse up, then down; the respiration embarrassed at one visit, less so at another; there will be peculiar fleeting eruptions on the skin; there may be coarse capillary injection here and there. These signs, which show a septic condition, are probably the most certain, although, after all, not very certain, signs of purulent collection.

Looking to some questions of special diagnosis, typhoid fever is of a great deal of interest. One of the most remarkable instances that I ever saw was one Dr. Morton and I had together, in which there had been a previous attack of appendicitis, Dr. Morton having attended the man through it. The pain was localized in the right iliac fossa, and strongly pointed to a recurrence of the previous malady, but the temperature was 104° , and in both of our experiences this was so unusual in appendicitis that the case was allowed to go on from day to day without surgical interference, and at the end of the

sixth day lenticular spots appeared on the abdomen, the bowels became loose, and the case ran the course of typhoid fever. Here the height of temperature was so great that, notwithstanding a clear knowledge of the history, Dr. Morton most judiciously held his hand. Of course, this difficulty will not arise when we have the temperature-chart and can trace the characteristic rise of typhoid fever. But we are often not called in at the onset, and we have to judge of the case as it stands. I would state that early height of temperature, a temperature remaining above 102°, would be an important point against appendicitis and in favor of typhoid fever. On the other hand, severe and recurring pain in the right iliac fossa is against this. With regard to the spots which have been stated to exist in appendicitis, and which are supposed to indicate pus, these do not have bearing on the question of differential diagnosis. They are not the characteristic eruption. They are not rose-colored spots of definite life; they are coarser, irregular, and very fleeting.

The question of diagnosis with reference to obstruction of the bowels, as I know by experience, is sometimes very difficult; it seems almost impossible to solve the question. Every single symptom, including scanty urination, that exists in appendicitis may be present. Generally, however, the absence of fever early in the case, the markedly distended and tympanitic abdomen, the obstinate constipation, the diffuse rather than localized pain, its lesser violence, distinguish the intestinal obstruction.

I turn from these points of diagnosis to some points of treatment. It would be out of place here to go into a full discussion of the medical treatment of acute appendicitis. I will only state that in the main I agree with the doctrine that free purgation is advantageous, and that the use of opium should be very moderate and ought to be avoided, certainly early in the case, if the pain will permit us to do so. There is a remedy which, in the early stages, I have known to be of advantage—the application of ice over the region of the appendix. If time permitted, I could give the detailed history of several cases in which the symptoms of acute appendicitis disappeared under this treatment. However, I pass on to the important point where surgery and medicine touch—the question of operation. While we have to defer most largely to the judgment, to the skill, and to the acquired knowledge of the surgeon, nevertheless the physician for his part also comes to certain definite conclusions. I cannot go as far as Dr. Deaver in thinking that every case of appendicitis had better be operated on. It seems to me that if we take this view, a person with appendicitis will go to bed not with the proverbial sword of Damocles suspended over his head, but with the scalpel of the surgeon already on his abdominal wall. I believe that the majority of cases of appendicitis in the first attack recover under medical treatment. This is certainly true when no perforation has happened. I am quite willing to think that what we here speak of to-night may be antiquated in six months. The wonderful technique, the ever-growing skill of the surgeon, and the fact that things become possible to-morrow which are not possible to-day, may make us all before long come to the conclusion that the percentage of risk is much less in operating in many

instances than in trusting purely to medical treatment. I am free to admit this; but, speaking from our present knowledge, I think that it is right to select only certain cases for operation. I give the results of my personal experience, much of it gained in association with surgeons. In the first place, I believe that, in addition to perforative appendicitis, it is our duty to operate early on every case of appendicitis in which there are signs of abscess, or in which there is good reason to think that pus exists, no matter how little. Let us rather occasionally be mistaken than run the risk of not operating. Therefore, if we could come to greater accuracy in the diagnosis of pus, I hold that the main point in regard to operation would be solved.

I also think that while we may and ought to have much hesitation as to the propriety of operating when appendicitis occurs for the first time, yet with every subsequent attack this hesitation should vanish. The risk becomes greater and greater. I think that when a person has had more than one attack, certainly when he has had several, especially at short intervals, it would be quite right to consider an operation as his best chance. I say this, for I have seen the results of delay. It is true the character of the attacks will have much to do with the issue. If the appendicitis be merely catarrhal, or the result of something ingested that is readily gotten rid of, a number of attacks may be borne with impunity. But the parts become altered and weakened by the repeated disorder, and, unfortunately, diagnosis has not reached the point that we can be sure of the tissue-changes that have happened and the power to withstand ulceration.

Again, when there have been signs of disturbance of a chronic kind in the lower part of the abdomen, although there has been no distinct history of appendicitis, I think that it is better to operate if a well-marked acute attack comes on. I recall a case in the Pennsylvania Hospital in which a young man, with obscure abdominal symptoms and some thickening in the right iliac fossa, was attacked with acute appendicitis. He was doing so well that I could not make up my mind to advise operation, but perforation and rapid peritonitis followed. It was afterward learned that there had been a previous appendicitis, and the autopsy showed that an early operation would most probably have saved him. I saw a similar instance in a boy eleven years of age.

There are some points that arise with reference to the time of operation in acute appendicitis which are purely matters for the surgeon. But that we ought to operate if the case goes beyond a certain day, an opinion often promulgated, I cannot agree to. I have seen cases that have gone on for a long time, for eleven days, for fourteen days, and yet perfect recovery has taken place. Therefore I do not think that the absolute law which is laid down by some, that you must operate on or soon after the third day, is a law that holds good. We must judge by the character of the case, the general symptoms, the way it is progressing, the likelihood of the presence of pus, rather than by the mere number of days.

In conclusion, I will state that I know of no question in practical medicine that is a more important, a more solemn question than this one of operation in appendicitis. On the one hand, you feel that you may be led into an operation that is unnecessary, and that in the

best hands is attended with some risk, and, on the other hand, you know that delay may be fatal. It is, indeed, a trying question, and we must solve it according to our best judgment in individual cases with close thought, putting the operation off if we safely can, but remembering the issues at stake. If we err let it be on the side of early operation rather than on that of too long delayed operation.

CLINICAL MEMORANDA.

EXTRA-UTERINE PREGNANCY SIMULATED BY A SMALL TUMOR OF THE OVARY; OPERATION; RECOVERY.

BY WILLIAM H. MORRISON, M.D.,
OF PHILADELPHIA.

THE possibility of diagnosing extra-uterine pregnancy before rupture of the sac has in the past received considerable discussion, but at present the generally accepted opinion is that such a diagnosis cannot be made with any great degree of certainty. A case on which I recently operated illustrates with such force the uncertainties attending the diagnosis of ectopic gestation that it seems worthy of record.

The patient, Mrs. X., thirty years of age, the mother of four children, has been under my personal observation for a number of years. In November, 1893, that is five months ago, she had a miscarriage at two or three months, from which she recovered without incident, with the exception that a slight tendency to bleed continued. For this I curetted the uterus some two weeks later. In the repeated examinations made at this time, nothing abnormal was detected in the pelvis. Following the miscarriage, menstruation recurred every twenty-four days, until February, when the period which should have commenced February 27th did not appear until March 11th, twelve days overdue. It, however, presented nothing unusual as far as the patient observed. Two weeks later, March 27th, she was taken with sharp recurring pains in the lower part of the abdomen, somewhat more severe on the right side. After a few hours these passed away, to reappear on the following day. With the pains there was a slight discharge of blood from the vagina. It was at this time (March 28th) that I was called. The pain, while acute, did not seem to be of great severity. There was no shock, no alteration in temperature, no disturbance of pulse. There was tenderness over the whole of the lower part of the abdomen not especially localized. There was no gastric or intestinal disorder to explain the abdominal tenderness.

Vaginal examination showed the uterus to be slightly enlarged. On the right side of the pelvis nothing abnormal could be discovered, but to the left of the uterus and low down was a globular mass, apparently one and a half or two inches in diameter, which seemed to be a cyst. It was quite tender on pressure, but could be displaced upward to a certain extent. This mass while in contact with the uterus was distinct from it. A sound introduced into the uterus gave a measurement of three inches, and as it was removed brought away two or three shreds of thin membranous tissue.

A diagnosis of cystic tumor in the pelvis, probably an extra-uterine pregnancy, was made, the condition of

affairs explained to the patient and her husband, and operation advised. This was acquiesced in, and on March 31st I opened the abdomen and removed a tumor which was found to be the left ovary in a state of cystic degeneration. The tube was normal. The right ovary was brought to the abdominal incision, but as it was small and presented no evidence of disease, it was allowed to remain. The after-course of the case was uneventful and the recovery complete. The enlarged ovary was ovoid in shape, and about two inches in its longest diameter. It contained three cysts. At its outer extremity was a small cavity containing about twenty minims of dark fluid blood, evidently due to a recent hemorrhage. This probably was the explanation of the sharp abdominal pains. A second small cyst at the opposite extremity was filled with clear, watery fluid, while the bulk of the tumor was made up of a cyst containing amber-colored gelatinous material.

While this case presents nothing unusual from a pathologic point of view, it does offer features of interest from a diagnostic and therapeutic standpoint. The points bearing upon diagnosis may be stated as follows:

1. A woman in whom the more common causes of suppurative tubal disease, namely, specific infection and septic contamination, could be excluded.
2. The fact that she had been submitted to examination within a few months and no pelvic tumor found. This I consider a strong point in connection with the diagnosis.
3. A delay of nearly two weeks in the appearance of the menstrual flow.
4. The occurrence of repeated, sharp, intermittent, abdominal pains, with a bloody discharge from the uterus.
5. Enlargement of the uterus and the removal of shreds of membrane from its interior.
6. The presence of a movable, globular, elastic, sensitive mass at one side of the uterus.

These facts, while rendering the diagnosis of unruptured tubal pregnancy sufficiently certain to demand prompt interference, were, as the sequel shows, not sufficient to justify an absolutely positive diagnosis.

In the treatment of ectopic gestation, aspiration of the sac, the injection of various agents into it, and the application of electricity, have been recommended and are still advised by some. In the present instance, such treatment, on account of the close relation of the tumor to the vaginal wall, would have been readily applicable, but, as the operation demonstrates, would have been useless if not injurious.

The lessons which this case teaches are: first, that an absolutely positive diagnosis of unruptured extra-uterine pregnancy is not possible, no matter how distinctive the symptoms and physical signs may appear to be; and second, that until an absolutely positive diagnosis is reached, such treatment as aspiration or injection of the sac is not to be considered.

Congress of American Physicians and Surgeons.—The President of the United States will receive the members of the Congress, their guests and visitors, and their ladies, at the Executive Mansion, on Thursday evening, May 31st, from 9 to 10 o'clock. Cards of admission may be had at the office of registration.

THREE CASES OF ATTIC SUPPURATION IN
WHICH OPERATION WAS FOLLOWED
BY FACIAL PARALYSIS (BELL'S
PALSY).¹

BY L. J. HAMMOND, M.D.,
OF PHILADELPHIA.

I WISH to report three cases of upper tympanic or attic suppuration, in which operation was followed by facial paralysis, for the purpose of learning from those of larger experience in this very important branch of surgery, how far it is possible to avoid this complication which, owing to the anatomy of these parts, is unquestionably a condition that is likely to occur. By reviewing our anatomy of this region of the middle ear we find it marked off at about its middle by the bony ridge which forms the covering of the facial nerve, or, indeed, the nerve may pass through this region entirely devoid of any bony covering. It will, therefore, be seen that nothing but the greatest care could possibly prevent wounding this important structure, or if the bony covering be present and carious, its removal cannot be accomplished without seriously interfering with the nerve. Another problem which my limited experience has not afforded me an opportunity of solving is whether the condition would be less likely to occur if the posterior operation (of Stacke) be employed instead of the operation through the canal, the latter being the method that I have employed in each case. The patients were all treated by thorough cleansing, both by means of the cotton applicator and with the post-tympanic syringe, as far as it was possible and as long as I felt it was wise to continue it. The results obtained, in so far as the suppuration was concerned in each case, I think justify the operative procedure.

CASE I.—Mr. L., thirty-two years of age, first consulted me April, 1893, when he gave a history of suppuration of the left ear for twenty-two years; suppuration from the right side had lasted but a few months, while on the left side it had been persistent during the entire period; he had been treated at intervals, though without in any way affecting the condition. The examination when I first saw him showed in the right ear a depressed cicatrix in the lower anterior portion of the membrane and some general thickening; on the left side there was a fetid discharge from the canal, which on removal showed considerable destruction of the upper wall, and the bent probe readily passed into the attic region; the hearing for whisper-sounds was on the left side, one foot, on the right, about six feet; the tuning-fork gave R. upon both sides; the patient complained of a fulness and some aching and tinnitus. The treatment, which was continued from three times to twice a week, from April until September, consisted of thorough cleansing, both by means of the cotton-carrier and hydrogen dioxide, and syringing with hot water carried well up into the cavity, and then followed by dusting the canal with borated powder. The naso-pharynx was also treated each time the ear was treated. While this treatment served to greatly lessen both the fetor and the amount of discharge, the latter at no time entirely ceased, there being at each visit some suppuration from that region. The operation consisted of removing

what remained of the membrane, malleus, and incus, the head of the malleus being lost and also a large part of the body of the incus; the cavity was then thoroughly curetted and part of the upper, posterior portion of the roof of the canal was carefully chiselled away; the whole cavity was then thoroughly washed out with a hot saturated solution of boric acid, and dusted with aristol, and the canal closed with a cotton plegget. Thirty-six hours after the operation, a marked paralysis was noted of the entire left side of the face, including the eyelids and brow, which fortunately subsided in six weeks. The suppuration had entirely ceased in eight weeks. The patient has reported to me once a month, and I have been gratified to find that the good results still continue.

CASE II.—Miss K. McN., twenty years old, has had suppuration on the right side for fourteen years; she has no recollection of having had suppuration on the left side, though a lower, anterior cicatrix clearly proves the contrary; the condition followed scarlet fever. When she consulted me on June 12, 1893, I found the canal partially filled with desiccated pus, removal of which brought to view an attic filled with granulation-tissue, the removal of which left the malleus-head bare. This case was treated in the routine way described until the latter part of September, when the operation was performed. The membrane, malleus, and incus were removed; the malleus was apparently not carious, while a large portion of the body of the incus was lost; the entire cavity was then thoroughly curetted and treated as in the foregoing case; paralysis here appeared on the third day after the operation and continued for about seven weeks; the discharge had entirely ceased by the end of the tenth week, and the cavity is perfectly well at the present time. The examination of the membrane within a month past shows a perfectly healthy cicatrix. The hearing, which was very deficient, was not in any way improved, though she thought the tinnitus, which was very marked, was somewhat improved.

CASE III.—Mrs. Le C., thirty-four years of age, has had suppuration from the left ear for thirteen years. When I saw her first, about one and a half years ago, there was free fetid discharge, which was more profuse in this case than is usually found in cases of attic suppuration; the bent probe passed well up into the attic, and the cleansing brought down large quantities of necrotic tissue, black and very fetid; the tuning-fork gave R.; the hearing was very good, a whisper being heard at four feet; she complained of vertigo and tinnitus, the former being so great that treatment by syringing was extremely difficult to carry out. After having treated the woman for a year and more without benefiting her to any great extent—indeed, if she went longer than a week without cleansing, the discharge would become as profuse and fetid as when I first saw her; the operation was performed November 2, 1893. In addition to removal of the malleus, the head of which was almost entirely destroyed, a portion of the posterior part of the roof of the canal was chiselled away, and what remained of the membrane was excised; the incus could not be found, and was probably destroyed; paralysis was noted in this case before she had recovered from the anesthetic; it was indeed complete. The suppuration had entirely ceased by January, though for a month previous to that time it had only been sufficient in amount to harden the powder that had been blown into the canal. The paralysis in this case has been per-

¹ Read before the Section of Otology, College of Physicians, April 3, 1894.

sistent, and while it is at present showing evidence of subsiding, it will, I fear, be some time before it is completely relieved; the vertigo following the operation was also a very annoying symptom, and continued for two weeks; there was, however, but slight elevation of temperature. The case is now under treatment at the University Hospital, at the hands of Dr. Potts, the electrician, who has kindly furnished me notes as to the muscular reactions, his opinion being that the nerve was not severed, but that it had been greatly irritated, probably by the pressure of a spicula of bone against it.

ELECTRICIAN'S NOTES.—The muscles did not respond to the faradic current, but did to a moderate galvanic current (about 6 to 8 milliampères). Qualitative reactions were present, the muscles responding in the peculiar slow manner characteristic of degenerated muscles and the ACC was about equal to KCC. Owing to the fact that the muscles exhibited KCC of about equal strength to that of ACC six weeks after reception of injury, we were led to assume that the nerve had not been seriously injured and to give a good prognosis. Normal reactions have returned in some of the muscles—now something over two months since treatment was begun.

In none of the cases was there any perceptible change in the hearing. There was, however, apparently some lessening of the tinnitus in Case II, and absolute relief from the vertigo in the last case. In all, the discharge was stopped, and it is reasonable to believe cured, though I am not prepared to claim this latter fact absolutely. It is my opinion that the want of proper drainage is the sole cause for the persistence in attic suppuration, as we know that drainage through the tube is usually cut off by the inflammatory adhesions within the middle-ear cavity, and thereby leaving the attic region entirely without any drainage. It would, therefore, seem to be good surgery to remove all obstructions, even though so annoying a condition as paralysis may follow.

THERAPEUTIC NOTE.

SULPHURIC-ACID PASTE IN THE TREATMENT OF EPITHELIOMA OF THE FACE.¹

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EPITHELIAL carcinomata about the eyelids, brow, nose, and cheek are not uncommon. The clinical history of an ordinary case is about as follows: Beginning usually after middle life as a small, flat, wartlike growth, the new-formation appears very innocent at first, attracting but little attention, perhaps, until some years elapse, when it begins to ulcerate; the ulceration may heal temporarily, only to begin anew later on, when it suddenly begins to spread, attacking all kinds of tissue, sometimes destroying the eyeballs, nose, and bones of the face, the patient being in a most pitiable condition until relieved by death. Fortunately most of these cases are found in very old people, who die of natural causes before the growths

give much annoyance. Occasionally, however, we see them in patients between forty and sixty years of age, with whom they may become a very serious trouble, and even destroy life years before the allotted time. By proper treatment before too much tissue is involved epithelioma of the face can unquestionably be eradicated, and yet we see now and then cases that have passed beyond all help of the physician or surgeon. Inquiry into the history of these hopeless cases will usually elicit the fact that the patient has allowed the trouble to reach this stage owing to the dread of having it cut out with the knife, which may have been recommended by his physician, or to escape this he has had applied some "cancer cure" that he has heard of or seen advertised, which has served only to irritate, and often rapidly extend the disease. Most authorities recommend excision, and no one doubts its efficacy; but if the dread of the knife causes one to postpone treatment, it is well to try something unobjectionable to the patient and equally reliable; so we naturally turn our attention to local applications. We find many preparations recommended—among them may be named caustic potash, citrin ointment, Vienna paste, and pastes of chlorid of zinc, arsenic, and sulphuric acid, as well as the cautery. Of these some are very painful and harmful. Though the chlorid of zinc paste and the cautery seem to be the most frequently advised, my own experience leads me to call especial attention to the value of a paste made of sulphuric acid and charcoal from saffron, in about equal quantities by weight. It is by no means a new remedy, having been used years ago by Velpeau, Michel, and others; but little has been written about it, and I do not think it is used now as generally as its efficacy justifies. I first saw it used by Dr. J. J. Chisolm, while I was his assistant at the Presbyterian Eye and Ear Hospital, where it was frequently employed during the three years that I was connected with that institution, and in no case did I see an unfavorable result.

In a recent letter from Dr. Chisolm he speaks of its use as follows: "I have been using carbo-sulphuric paste for thirty-five years in epithelial troubles of the face. It is one of the very old-time applications. I was taught its value as a student. The very fact that I continue to use it is because I know nothing quite so good. If properly made with flowers of saffron, which makes the finest kind of carbon, it becomes a tenacious paste that will stick to a raw surface and become a part of the slough or dry scab, when slough and paste come off together, leaving a newly healed surface, which delights the heart of the surgeon. It is a first-rate application, which every one should know about."

If the application is limited to the diseased tissue, it is not very painful unless the new growth is extensive. A few applications usually suffice, when a dry scab is formed, which peels off somewhat like a vaccination crust, leaving only a slight scar.

A single case illustrates its value as compared with some other methods. About eighteen months ago Dr. J. came to me to have a small epithelial carcinoma removed from the side of his nose near the inner canthus of the right eye. He told me that he had recently returned from New York, where he had taken his wife to a special hospital to have a similar trouble removed from her face. She was kept in the institution at heavy ex-

¹ Read before the Medical Society of the District of Columbia, April 18, 1894.

pense for three weeks, during which time caustics and poultices were applied. She was cured, but with a great deal of discomfort, loss of time, and heavy expense. Not being pleased with the treatment, the Doctor, whose own case was pronounced worse, came to me to have the sulphuric-acid paste applied. Two applications were made in three days, and about the tenth day the growth came away entire, the Doctor not having been kept from his practice more than a half-hour. I never advise this paste when the mucous membrane is involved. In all other cases that have not progressed too far, I like it as well as the knife, and think if physicians would use it with patients who postpone treatment from the dread of cutting, there would be few cases that reach the hopeless stage.

NEW DEVICE.

A NEW FORM OF PALATE-HOOK.

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WHILE in most cases posterior rhinoscopic examination is possible without the aid of a palate-hook, in some instances such a device becomes an absolute necessity.

In view of this and on account of the generally unsatisfactory forms of retractor which illustrate the instrument-maker's catalogues as well as most text-books on rhinology, I desire to call attention to the instrument shown in the accompanying cut.



The main portion of the retractor consists of a piece of medium-weight steel wire about twelve inches long. This is bent back upon itself at its middle and there again sharply bent up on the flat to form a hook. At about two and a half inches from this hook the ends are again bent upward upon the flat, at an obtuse angle. From the hook to this latter bend the wires are securely fastened; from there on they are separated horizontally in a V-form. Over this outer portion slides a flattened ring having projections upon its inner side to catch in parallel notches upon the outer surface of the diverging arms. To this portion also belong the two curved arms which rest upon the upper lip, or which, if necessary, may be made to rest within the nostrils. Flattened metallic handles are fastened to the ends of the main portion.

In using the instrument the handles are approximated, and the slide drawn out until in contact with them. The hook is then introduced behind the palate, the necessary traction made to draw it forward, and the slide allowed to fall until the bars engage the lip or slight pressure may be made upon it with the ring finger.

Simply allowing the handles to spring apart fixes the catch and the instrument is in position. The angle at the vertex of the V throws the handles above the lip and thus out of the way of all manipulations.

In removal, the handles are pressed together, the instrument pushed slightly, and the hook disengaged by turning, when it may be withdrawn.

The superiority of this to all other forms of self-retaining retractors lies in the fact that both introduction and withdrawal may be accomplished with one hand. By the exercise of a little dexterity, the retractor may be used and a complete examination made with one depression of the tongue—often a great convenience when that organ is muscular and rebellious.

In my own practice I have frequently had occasion to use the hook, and it has always proved very satisfactory. In introducing this instrument I can unfortunately make no personal claim of invention. It was devised several years ago, by an American whose name I have been unable to learn, while studying in Vienna, and although in use there, is not generally known in this country.

1804 CHESTNUT STREET.

MEDICAL PROGRESS.

Akromegaly.—At a recent meeting of the Philadelphia County Medical Society, DR. S. SOLIS-COHEN presented a case of akromegaly exhibiting some structural changes not found, or at least not recorded, in all cases, and called attention to the apparently good results of treatment with desiccated thyroid gland.

The patient, some fifty-two or fifty-three years of age, came under observation about eighteen months before for relief from excruciating headache, which had for many months been so intense at times as to prevent his lying down, pressure on the scalp increasing the pain. Attention was at once attracted to the peculiarities of facial structure presented, and further examination demonstrated the characteristic curvature of the back and enlargement of the hands and feet. The patient stated that his features had materially altered within the preceding four years.

He had had to enlarge his hat-band twice, and his shoes twice within three years. The shoes were a little longer but much broader than formerly. The hands were broadened rather than lengthened; the fingers not exactly "sausage-shaped," but thick and clumsy. Distortion of the joints was to be attributed to his occupation, and probably antedated the development of the akromegalic conditions. Part of the coarseness of the skin of the hands might likewise have been due to occupation.

The enlargement and projection of the superciliary ridges, the lateral projection of the malar bones, the broadening and deepening of the chin, gave the face the characteristic lengthened, elliptic outline. The great enlargement of the nose; the thickening and projection of the lips; the heavy folds, deep furrows, and somewhat greasy texture of the skin, especially of the forehead; the stiffening and projection of the auricular cartilages, completed the picture. The lower jaw did not, however, project beyond the upper jaw. The teeth were bad. The tongue was thickened and deeply fissured. The voice was deep and had a monotonous quality, the latter only partly attributable to a "boilermaker's deafness." The laryngeal and tracheal cartilages were almost if not completely ossified. The thyroid gland could not be demonstrated. The forward thrust of head and neck,

from curvature of the cervico-dorsal spine, threw the clavicles well out from the windpipe, leaving a great hollow just above the sternum. The clavicles and scapulae were enlarged, the ribs were broadened and apparently in contact, and the costal cartilages seem to be ossified. The narrowing of the chest and the percussion-phenomena showed an absence of emphysema; yet the breathing was scarcely at all thoracic. There was an almost inappreciable rise and fall of the clavicles, showing slight vertical motion of the thorax as a whole, and on great inspiratory and expiratory exertion an expansion of from 0.5 to 1 cm. could be determined at the nipple-line. Breathing was almost exclusively abdominal.

The patient was becoming feeble; his muscles were wasting, though electric examination showed only quantitative change.

He presented vasomotor phenomena—flushing, occasional vertigo, and polyuria. The urine was deficient in solids, but did not contain sugar or albumin, nor was other abnormality detected. After treatment with thyroid-powder (5 grains in capsule every morning) the quantity of urinary water decreased and the urea-content arose, while the distressing headache was completely relieved. An intercurrent attack of violent sciatic pain disappeared after recourse to thyroid medication.

Upon the somnolence, however, no effect was obtained. The patient could still go to sleep upon the slightest provocation—indeed, without any.

Ophthalmoscopic examination disclosed no lesion of the fundus and no error in the visual field, a confirmation of the view that hemiopia and other visual errors are merely secondary phenomena, due to pituitary enlargement, and that the latter is not necessarily a feature of the pathologic complexus. The opinion was expressed that early treatment with thyroid preparations will entirely prevent overgrowth of the pituitary body, embryologic analogy seeming to indicate that it is an attempt at compensatory hypertrophy, ill-directed and baneful only by reason of the altered position of the structure.

Pickaxe Wound of the Brain.—At a recent meeting of the Surgical Section of the College of Physicians of Philadelphia, Dr. JOHN B. ROBERTS presented a man who came under his observation with a small wound of the skull through which brain-substance oozed. Four weeks previously he had been struck with a pickaxe, shortly before admission to the hospital. Within an hour and a half of the injury the skull was laid open, and pieces of bone were found driven into the brain. With the mallet and chisel the edge of the fracture was cut away, and the fragments of bone removed with forceps from the brain-tissue. A finger passed nearly an inch down into the brain-structure, which was soft. The soft brain-tissue was then washed away with a stream of bichlorid solution. As there was a good deal of oozing from the pia a small piece of gauze was stuffed into the wound to make a little pressure, the scalp-wound was sewed up at the ends, but the gauze was allowed to stick out at the center. The wound united by first intention where the edges were sewn together; and by second intention where the wound had been kept open by the gauze, which was removed at the end of twenty-four hours. The wound had finally healed, and the man was well.

The pulsation of the brain could be seen where the bony wall was absent.

The Mortality from Typhoid Fever.—From an analysis of the cases of typhoid fever, 144 in all, admitted to the London Temperance Hospital during a period of twenty years, and a comparative study of the results obtained in other hospitals, BENJAMIN WARD RICHARDSON (*Asclepiad*, No. 40, vol. x, p. 352) concludes that the average hospital mortality from typhoid fever is from 15 to 16 per cent. Cases received in the earliest stages and treated judiciously may exceptionally yield as low a mortality as even 2 or 3 per cent. The dangers occurring during the diseases are due to complications, and especially to those involving the alimentary canal; these dangers are much intensified by movements of the body and errors of diet. In ordinary hospital practice, including every kind of case at any stage, 9 per cent. is the most favorable average. In spite of complications, so often present when the patient is admitted, it may be possible to keep the mortality down to 9 or 10 per cent, without any use of alcohol; with baths and other suitable appliances still more encouraging results may be obtained. There is not a shadow of proof that abstinence from alcoholic treatment increases the mortality of typhoid fever.

Suprapubic Cystotomy in an Infant Two Years Old.—MINEUR (*La Polyclinique*, 1894, No. 8, p. 127) has reported the case of an infant, two years old, that for two months cried upon passing water, and gave evidence of irritation referred to the penis. Examination with a sound disclosed the presence of a large calculus in the bladder. It was decided to remove the foreign body by suprapubic cystotomy. The bladder was distended with a solution of boric acid, and a water-bag was introduced into the rectum. An incision, two inches long, was made in the median line above the pubis; the bladder was supported by a suture on either side and then incised. The calculus was removed with the aid of forceps, and a rubber drainage-tube was introduced and held in place by means of a suture. The bladder was fixed to the abdominal wall and the wound closed, except at the point where the drainage-tube made its exit. On the sixth day the tube was removed, and perfect recovery soon ensued.

The Pathogenesis of the Laryngeal Complications of Typhoid Fever.—LUCATELLO (*Berliner klinische Wochenschrift*, 1894, No. 16, p. 379) has reported a case of typhoid fever in which, in addition to the classic lesions, there existed a reddish-gray hepatization of the upper lobe of the right lung and a catarrhal condition of the mucous membrane of the larynx. During life puncture of the spleen on the tenth day disclosed the presence of the typhoid-bacillus, and examination of the saliva and of laryngeal secretion on the twelfth day disclosed the presence of the same organism. It is believed that the changes induced by the presence of the organism in the larynx, sometimes resulting in ulceration, predispose to the lodgment of other microorganisms, including those with pyogenic properties, and it is through these that the secondary processes sometimes observed are brought about.

To Clean Soiled Slides and Cover-glasses ZETTNOW (*Centralblatt für Bakteriologie u. Parasitenkunde*, Bd. xv, No. 15, p. 555) recommends the employment of a solution containing 200 grams of red potassium chromate, to which are added 2 liters of hot water, and then, gradually, with constant stirring, 200 c.cm. of crude concentrated sulphuric acid. As the fluid will not penetrate beneath affixed cover-glasses, it is necessary, first, to remove these by gentle heat over a flame. To facilitate the cleaning of cover-glasses these may be heated in the fluid over a water-bath, care being taken that the fluid be well distributed, so as to act on all. The covers may then be washed in water, and afterward in a weak solution of sodic hydrate for five minutes, twice or oftener, and finally rinsed with alcohol.

THERAPEUTIC NOTES.

Congelation in Diagnosis and Treatment.—At the twenty-fourth annual meeting of the Medical Society of the State of California, DR. ALBERT ABRAMS spoke highly of the therapeutic application of freezing, by means of chlorid of methyl, or rhigolene, or some similar volatile body in the treatment of neuralgia.

In order to intensify the shock in freezing, the part to be frozen may first be rendered anemic by means of an Esmarch bandage or by parenchymatous or hypodermatic injections of water. By means of the first procedure congelation occurs sooner, is more intense, and of longer duration.

The second, which is denominated "reinforced freezing," can be employed in conjunction with the first, and is executed as follows: With a large-barrelled syringe a sufficient quantity of water is injected beneath the skin over the part to be frozen, or directly into the tissues, until an appreciable bulging is produced. If the spray is now directed on the protuberant part, a lump of ice is formed in the tissues or under the skin.

Congelation has been thus employed as a means of diagnosis for the following purposes: To distinguish between neuralgia of central and that of peripheral origin; to differentiate neuritis from neuralgia; to locate the lesion in neuralgia; to differentiate many neuralgic affections of the head, and thoracic and abdominal parieties, from visceral disease.

If a nerve, the seat of neuralgia, is frozen nearest its point of origin, the pain will disappear if the neuralgia is of peripheral origin, and persist if of central origin. In the absence of spontaneous pain, the painful points in the course of the nerve-distribution may serve as guides. Freezing is said to be a specific for all recent forms of uncomplicated neuralgia.

Pain referred to an accessible nerve, treated by freezing near its point of exit, and failing to yield to repeated applications of the spray, is not a veritable neuralgia, but a neuritis, or complicated neuralgia.

In the treatment of neuralgia, when reinforced freezing is not advisable, recourse may be had to a modified method, which is denominated "coin-freezing." The method is as follows: A coin of indifferent size is employed, and, having been previously moistened in water, is placed in close contact with the site to be acted upon;

the spray is next directed on the coin. After allowing the spray to act for a certain time, which is determined by experience, it will be found impossible to remove the coin without some difficulty. The advantages claimed for this method are: That the freezing is more thorough, and that it can be accurately localized. It is less severe than reinforced freezing.

Neuralgia of the intercostal nerves may be accompanied by visceral symptoms of such prominence that the intercostal neuralgia is overlooked, and treatment is directed toward a presumable visceral disease. Such cases, while presenting a varied clinical picture, are frequently mimetic, even if only atypically so, of gastric, cardiac, renal, vesical, and esophageal affections. As a rule, however, vertebral tenderness corresponding to the exit of the nerves can be elicited, and when congelation is practised over the seat of vertebral tenderness during a paroxysm, the latter is nearly always inhibited.

It was finally pointed out that the use of congelation may be extended in surgery to the treatment of local tuberculosi, tumors, etc. Parenchymatous injections of water into tumors, coupled with freezing (reinforced freezing), may prove of inestimable value in the treatment of neoplasms. In parasitic affections of the skin good results had been obtained in some cases.

The Pathogeny and Treatment of Sciatic Neuritis.—At the recent International Medical Congress, PERSONALI (*Le Mercredi Médical*, 1894, No. 17, p. 203) expressed the view that a large number of cases of sciatic neuritis represent but a secondary process, depending upon the extension to the sciatic nerve of an inflammatory process set up by various causes in the connective tissue surrounding the coxo-femoral articulation. Support for this view is found in the pain early referred to the articulation, in the limping gait observed before the sciatic nerve is known to be involved, in the pain induced in parts adjacent to the joint by rotation of the thigh, by the extension of the pain to the entire hip, to the crest of the ilium, and to the external border of the sacrum. The treatment employed and advocated in these cases consists in the employment of the faradic current. One electrode is applied to the lumbar region; the other electrode consists of a brush made of fine, flexible copper wire, which is rapidly passed over the entire affected hip, the sciatic nerve, and the muscles of the calf; then the rapidity is diminished in order to accustom the patient to the pain of the current; and the sitting is concluded by leaving the brush in place for a minute successively upon the painful points upon the hip in the course of the nerve, and in particular over the great sciatic notch, at intervals of twenty or thirty seconds. A strong current is used, as the pain is intense; the sitting is repeated daily, and the entire treatment covers from twenty-five to forty-five sittings. The first result of the treatment consists in an aggravation of the symptoms for about a week; thereafter the pains progressively disappear.

Guaiacol in the Treatment of Erysipelas.—WHALEN (*Journal of the American Medical Association*, vol. xxii, No. 17, p. 619) reports the treatment, with satisfactory results, of several cases of erysipelas with topical applications of guaiacol in doses of from 20 to 30 minims.

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SATURDAY, MAY 26, 1894.

NOW, THE JUDICIAL COUNCIL!

By the action of the Medical Society of the State of Pennsylvania in formally presenting to the Judicial Council of the American Medical Association a statement of the facts in the case of *The Association vs. The Trustees*, the subject becomes one for judicial inquiry and determination, and further discussion *pro or con* may well be suspended. It is proper, however, that the issue brought before the Council should be clearly understood, and our last word on the subject will be devoted to this purpose. As we read the statement of the Medical Society of the State of Pennsylvania, it charges the Trustees, not individually but as a body, with official misconduct. If a minority of that body or any individual member has by word or vote endeavored to prevent the misconduct complained of, this fact should now be made clear, so that the innocent may not suffer with the guilty. Should no statement as to individual responsibility be volunteered by either majority or minority, it is the duty of the Judicial Council to inquire into all the facts, not only in justice to individual Trustees, but in justice to itself, to the Association, and to the Medical Society of Pennsylvania, which appears as prosecuting attorney.

The indictment brought by the Pennsylvania Society has two counts:

1. That in originally admitting advertisements of secret nostrums into the columns of the *Journal*, the Trustees were guilty of a *breach of trust*; inasmuch as the organic law of the Association, virtually constituting a deed of trust under which the *Journal* is administered by said Trustees, prohibits such action.

2. That in continuing to publish such advertisements after the Association had by formal vote directed their attention to the prohibitory clause of the deed of trust, and ordered them to respect it, the Trustees added to their original violation of trust the new offence of *overt rebellion* against the constitution and laws of the Association.

The additional charges of permitting the publication of personally abusive letters, and of inserting the advertisement of a certain Sanitarium Company, are simply cumulative, and fall under the two heads of *breach of trust* and *rebellion*, already stated.

Incidentally the attention of the Judicial Council is directed to the connection of certain officials and ex-officials of the American Medical Association with the Sanitarium Company alluded to.

Failure by the Judicial Council to act with due appreciation of the gravity of the case laid before it is a disaster not to be anticipated. Those who count upon bringing about such failure forget that it would be tantamount to a confession that the Code of Ethics is meant for show rather than for use; or if for use, merely to frighten the little boys with, while the big ones climb the farmer's apple-tree, and unhindered help themselves at leisure. It would inevitably be taken as a virtual repeal of the Code, in Council, without awaiting the verdict of the Association. It is, we repeat, a disaster not to be anticipated.

Pennsylvania has been patient in waiting, temperate in statement, and moderate in demand. It does not, as it might well have done, ask the censure or expulsion of the Trustees, but submits the facts to the Judicial Council for such recommendation as in the view of the Council may best vindicate the authority of the Association. It is purification, not punishment, that is aimed at, and should the Council, in its wisdom, decide to temper justice with mercy, Pennsylvania will surely not object.

The whole proceeding, however, the humiliating necessity for the presentation to the judicial branch

of the Association of such grave charges against its most important executive branch, should make us seriously ponder. The only defence thus far made by the organ of the Trustees is that the breach of trust complained of was done for the sake of money-making. This defence assumes that the Association will adopt as its motto: "Whatever pays is right!" Had the Code of Ethics been repealed, it would have been difficult to repudiate this assumption. A more impressive object-lesson of the utter demoralization that would follow the adoption of the report of the majority of the revision committee could not well be imagined.

We trust that the delegates to San Francisco will take the matter earnestly to heart, and especially in selecting the officers and Trustees of the American Medical Association. It is not enough that these should be men of high personal character, untainted by questionable associations; they must not be men who, from indecision, timidity, or that amiable weakness miscalled "good-nature," will permit official wrong-doing to go unchecked or unchallenged.

EDITORIAL COMMENTS.

Reforms in the Care and Treatment of the Insane.—It is not often that a speaker is invited to criticise those whom he is asked to address; but this is the unique position in which Dr. Weir Mitchell found himself on the occasion of the fiftieth annual meeting of the American Medico-Psychological Association just held at Philadelphia. When first asked to speak, Dr. Mitchell wished to decline on the rather frank plea of not having anything good to say of those, as a body, who extended the invitation. Upon being assured that fair criticism would be received in a proper spirit, Dr. Mitchell hesitatingly accepted the invitation. That he was as good as his word none will doubt who had the privilege of hearing Dr. Mitchell on this occasion. Bristling with criticism was the address—criticism of the severest kind, yet well meant and perhaps, as even those most nearly concerned may admit, not entirely undeserved. The numerous defects in the management and administration of hospitals for the insane was clearly and forcibly indicated, and the requisite and suitable remedies consecutively pointed out. Reference was made to the seclusion with which the hospital alienist ordinarily surrounds himself, not coming in sufficient and frequent contact with physicians generally, thus failing to give and receive new knowledge and losing the stimulus that friendly competition and friction with one's colleagues always affords. Regret was expressed that hospital alienists had not contributed more largely to medical thought and had not furnished answers to many of the unsolved problems connected with diseases of the mind. The need, aye, the demand for skilled nurses for the care of the insane, both in hospital and out of it, was

strongly emphasized, and deficiencies in equipment as regards special therapeutic measures, such as massage, electricity, hydrotherapeutics, and the like, were forcibly pointed out. Particular stress was laid upon the importance of furnishing employment for the patients, and particularly out-of-door occupation. Concerning this urgent necessity THE NEWS has frequently spoken its word. The question was raised if sufficient thought were given to the future of cases dismissed as cured, as to whether or not directions were given as to the mode of life, in order to prevent relapse or recurrence. For many of the evils it is admitted that much blame attaches to the extra-medical management. Among other things, it is too much to expect that one man shall be both administrative superintendent and medical director. The appointment of medical officers on the basis of political adherence was condemned in language none too severe, and the inadequacy of the average board of managers was only too vividly and faithfully delineated. Dr. Mitchell's ideal hospital for the insane would include a group of buildings near the city, beautifully surrounded with Nature's decorations and amply endowed; a chief medical officer, who should live and spend a part of his time outside of the hospital; an adequate resident staff, a full corps of trained nurses, and a consultant staff comprising the ablest alienists and neurologists to be had, and to be selected solely on account of their ability. If the deficiencies and evils pointed out by Dr. Mitchell were corrected, and if but a tithe of the reforms advocated were put into execution, the art and the science of medico-psychology will have received an impetus whose influence will reach far beyond the present and far beyond the circle of those to whom defect and remedy were directly pointed out.

Disgusting Wire-pullers.—The success of the methods of the lowest type of governmental and legislative politicians has served to give us some rather stupid imitators in medicine. In almost every medical society will be found a clique addicted to the ignoble arts of "pipe-laying" and office-scheming. For months prior to an election of officers these fellows are snakily at work, "fixing" matters and men with a view of forestalling or prejudicing the minds of electors, or of nominating committees, or of those who appoint such committees. According to current report the officers of the American Medical Association have already been chosen and their election assured by the wire-pullers. There is never the least doubt about the motive of the politicians—such men have but one motive. It is a motive thoroughly well recognized and understood by those who, unselfish and frank, have had dealings with these thoroughly selfish and artful tricksters. The tools made use of for their purposes are the thoughtless, the trustful, the stupid, the indifferent. The clique is usually made up of a few, cunning, oily, and sly, who never express an opinion, and who want to be leaders and manipulators, and who especially want consultation-practice; there are also others hungry for nostrums, jobbery, and profit; still others more hungry for office to satisfy vanity and ambition; a few gushers and "big-hearted," "broad-gauge" fellows with a hidden world of slimy selfishness beneath the hail-fellow-well-met masks—all "on the make" (one is compelled to use curbstone slang

to describe them)—all caring as little for scientific medicine, humanity, or our profession, as a lot of dickerers Senators or Tammany politicians care for justice or for good government.

Is it not time we made an end of this execrable nonsense? The attempt to boost oneself or his "pals" into office, or to get the appointment to deliver "the address in —," to "fix" nominating committees, to forestall the free and spontaneous action of the electors, is simply disgusting. The things that the medical politicians scheme for, by reason of the very facts of the schemers and the schemings, are precisely the things that should *not* be done.

A Desirable Amendment to State Licensing Laws.—While of course it is desirable to prevent incompetent and unqualified persons driven out of one State by medical license laws from settling in another, it is also desirable that competent and qualified physicians removing from one State to another should not be subjected to unnecessary annoyance and expense. Would it not be possible to incorporate in the various State laws an identically phrased amendment, providing that a physician legally qualified to practise in any State of the Union in which a medical license law is in effect, should be entitled to register in any other State upon presentation of a certificate of qualification from the licensing-board of his own State? In some of the recent State laws there is, we believe, a proviso that anyone who has successfully passed an examination before the Licensing Board of another State shall be entitled to practise without reexamination, but we should be pleased to see the same privilege, or rather right, extended to competent physicians who graduated before the days of Licensing Boards, and to whom reexamination would be a hardship, while unnecessary for the protection of the community. Such an amendment to existing laws as would secure the end desired without breaking down any of the safeguards against the irruption of quackery, established with so much difficulty, might, we think, be easily drafted by a committee of the American Medical Association, and we commend the subject to the attention of the Section on State Medicine.

REVIEWS.

PROCEEDINGS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY. Vol. xiv. Session of 1893. LEWIS H. ADLER, JR., M.D., Editor. 8vo., pp. xxviii, 484. Philadelphia: Wm. J. Dornan. Printed for the Society, 1893.

THIS volume of *Transactions of the Philadelphia County Medical Society* is calculated to maintain the high standard of work for which this eminently representative body is known. We can only select for reference a few of the large number of subjects discussed. Perhaps the two most important discussions are those on the subject of abortion, particularly in its medico-legal aspects, and that on the steps to be taken in the prevention of tuberculosis. We are gratified to learn that a committee of five has been appointed to investigate the question of the advisability of presenting to the Legis-

lature a bill looking toward the making of the statements of patients to their attending physicians privileged communications. THE NEWS has already expressed its conviction that the physician should, in this connection, be placed upon the same plane as the lawyer, and should be permitted in a court of law to decline to divulge information communicated by patients in the strictest of confidence. It is already well known that the County Society has adopted a resolution recommending that tuberculosis be placed upon the list of diseases to be returned to the Board of Health. The agitation has not been devoid of good, for the Philadelphia Board has, since, taken judicious action, issuing circulars of information and offering to undertake disinfection whenever requested by a physician. Registration of cases is invited, but has not been made compulsory. A paper entitled "Hypodermatic Medication in Syphilis," by Dr. Lawrence Wolff, and another entitled "The Present Position of the Hypodermatic Method in the Treatment of Syphilis," together with the discussion of both, give a good résumé of the opposing views upon this important subject. Attention should further be called to the admirable portable tub described by Dr. W. R. Batt, which thus makes practicable the almost universal employment of the cold bath in the treatment of the febrile process. The book also bears evidence of the operative activity of the gynecic surgeon.

The volume, as a whole, is a most creditable one, for the preparation of which not a little praise is due the editor. The mechanical details are of the usual high standard that characterizes the work of Dornan.

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSOCIATION. Vol. VI. Philadelphia: Wm. J. Dornan, 1893.

THIS volume contains thirty-three valuable contributions to orthopedic literature from some of the foremost orthopedists of the country. In his address, the president outlines briefly the history of the Association, illustrating therein the value or power of a thought properly directed and carried out. Scientific and practical papers on the knee by Willard, Judson, Phelps, Lovett, Taylor, and others, show thought and research in preparation. Several new knee-splints are reported which indicate originality on the part of the authors and also that methods of obtaining fixation and immobilization are being diligently sought for, though unfortunately they have not yet been discovered. The mechanical and surgical aspects of hip-joint disease are discussed by Bradford, Judson, Sherman, and others, and quite a number of hip-splints described and illustrated, indicating the need which exists of some simple form of appliance which, with certain modifications for individual cases, can be depended upon to combine extension and immobilization.

The historic papers of Judson on "Traction in Hip-disease," Griffith on "Tumor Albus," and Wilson on "Bone Operations in Equino-varus" are especially instructive contributions. Papers on other topics by Myers, Weigel, and others, and presentations of orthopedic instruments of various description also occur. The book is useful as a reference to individual opinions and judgments as expressed in the papers and the discussions following their presentation.

PHILADELPHIA HOSPITAL REPORTS. Vol. II, 1893. Edited by CHARLES K. MILLS, M.D., and JAMES W. WALK, M.D. 8vo, pp. x, 292. Philadelphia: J. B. Lippincott Company, 1893.

WE have only words of welcome and praise for this second volume of the *Philadelphia Hospital Reports*, which contains some forty-four articles, of varying degree of interest and value, together with a catalogue of the specimens contained in the Pathological Museum. This collection of specimens constitutes really the only permanent resource of the hospital for purposes of instruction and study, as the clinical records and, to a certain degree, the pathologic records, will not afford much help to future investigators. We thus have good reason to be doubly glad to have some permanent record of the clinical and pathologic work of the hospital, a field rich beyond conception in material of both kinds, and take this occasion to express the hope that a perfected system of record-making and record-keeping may be instituted, in order to make the observations of value, not only to those now in the service, but that they shall constitute records of permanent value, to be referred to with satisfaction and profit by those who may in the future desire to consult such statistics. This volume contains a sketch, together with a good lithographic likeness, of the late D. Hayes Agnew, and also a sketch of the late Alice Fisher.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION FOR 1893. Edited by GEORGE THOMAS JACKSON, M.D., Secretary. Pp. 82. New York, 1894.

THE contents of this volume include a number of valuable and interesting papers, several of which are illustrated, discussions on Pityriasis Rosea and Pemphigus, and the Report of the Statistical Committee. There is also a list of the publications of the members during the year ending September 1, 1893. Among the papers may be mentioned that of Dr. H. Radcliffe Crocker, of London, on "Lupus Erythematosus as an Imitator of Various Forms of Dermatitis." Cases are described in which the lesions closely simulated those of erythema papulatum, erythema tuberculatum, psoriasis guttata, and lichen planus, the latter illustrated by an excellent colored drawing. In an instructive "Contribution to the Pathology of Acne Varioliformis Hebræ," Dr. John Addison Fordyce arrives at the conclusion that the affection is "an inflammation of the pilo-sebaceous system, probably microbic in origin," and that Bazin was correct in naming it acne pilaris. The histologic dissimilarity of hidradenitis and acne varioliformis, between which the clinical resemblances are very close, is explained on the supposition that in the one case the pathogenic organisms penetrate through the sweat-ducts and in the other through the hair-follicles.

ANNUAL REPORT OF THE HEALTH-OFFICER OF THE PORT OF NEW YORK FOR THE YEAR 1892. 8vo, pp. 120. Albany, 1893.

DR. JENKINS' report covers forty-seven pages, the remainder of the book consisting of seven appendices. It is mostly a narrative of the threatened invasion of cholera in the autumn of 1892, and bears evidence of the author's irritation at the criticisms of his conduct during that episode.

In Appendix E, by Dr. J. M. Byon, there is given a very interesting account of the work done by the medical staff, nurses, and assistants at Swinburne Island and the lower quarantine station. Of this the part which will most engage the attention of the profession is that bearing upon the treatment of cholera by Cantani's method of hypodermatoclysis, or the free injection beneath the skin of saline solutions. Together with enteroclysis, or rectal injections, usually of tannic acid in solution, this plan seems to have been found of essential value.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS. Vol. VI, for the year 1893. Philadelphia: Wm. J. Dornan, 1894.

THIS volume scarcely calls for extended review in these columns, inasmuch as a practical *résumé* of the proceedings of the last meeting of the Association was published in *THE NEWS* of June 10, 1893, at page 640. It only remains to be added that the *Transactions* makes a most desirable volume, upon the editorial and mechanical preparation of which the Association is to be congratulated. At the end of the volume is a splendid likeness of the late George Jackson Fisher, of Sing Sing, N. Y., presented in connection with a memorial by Dr. William Warren Potter.

TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND. Ninety-fifth Annual Session, held at Baltimore, Md., April, 1893. Also Semi-annual Session, held at Easton, Md., November, 1892.

In addition to the usual lists of members, of officers, of committees, various reports, a record of the minutes of the two meetings of the Faculty, and sundry other matters, this brochure contains the President's Address; an interesting and valuable article by Dr. Louis McLane Tiffany, entitled "The Treatment of Facial Neuralgia by Excision of the Extra-cranial Portions of the Fifth Nerve;" as well as the Annual Address by Dr. Reginald Fitz, a timely article entitled "Intra-peritoneal Hemorrhage."

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA. Forty-fourth Annual Session. 1893. Atlanta, Ga.

THIS volume of *Transactions* contains, besides the President's Address, thirty-seven papers of varying degrees of merit. Fourteen are upon subjects included under medicine, hygiene, etc., twelve belong to obstetrics and gynecology, eight are surgical, and three are upon ophthalmic subjects.

The matters discussed give evidence of the practical interest of the meeting, but we cannot help noticing the fact that there are but few contributions on questions both in medicine and surgery that have recently engaged special attention.

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION. Twenty-fifth Annual Session, 1893.

As is usual in a volume such as the *Transactions* of a local society there is much that is only of a passing interest. But this volume of *Transactions* embodies a fair proportion of valuable papers; especially would we

mention the article of Dr. Smith, on the "Generalization of Carcinoma in the Stomach," Dr. Cerna's report on the "Action and Uses of Pental," Dr. Thompson's discussion of "Whitehead's Operation for Hemorrhoids," and Dr. Hadra's "Contribution to the Pathology of the Fourchet."

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY FOR THE YEAR 1893. Volume XVII. Detroit: Published by the Society. John Bornman & Son, Printers, 1893.

THIS volume, neatly printed and adorned with a portrait frontispiece, contains a number of valuable papers. That by Dr. Collins H. Johnston upon the Brand method of cold-bath treatment of typhoid fever is specially admirable in its clearness and force, and exposes the errors of many text-books and papers which do not give Brand's method, although they purport to do so.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Forty-fourth Annual Session, held at Philadelphia, May 15, 16, 17, and 18, 1894.

(Continued from p. 560.)

THIRD DAY—MAY 17.

MORNING SESSION.

THE opening paper was the annual "Address in Hygiene," by DR. J. H. WILSON, of Beaver. Preventive medicine, he said, had done more for humanity than had any other department of medical science. That cholera did not recently gain a foothold in this country and that yellow fever was stamped out when it had appeared, were both due to the labors of hygienists. He called attention to the dangerous custom in our public schools of passing books and pencils from one scholar to another, and urged that it be abolished. Diphtheria and other contagious diseases may thus be transmitted. He urged upon physicians the importance of instructing their patients in the value of personal cleanliness. In regard to pulmonary tuberculosis, he said that 165,500 persons, or 450 a day, die annually of that disease in this country. The premises vacated by a tuberculous patient should be disinfected, and the people taught that tuberculosis is not hereditary but is contagious.

DR. WM. P. MUNN, of Denver, Colorado, spoke of the system of inspection practised in Denver houses in which contagious diseases had occurred. The records of the houses are preserved, and renters of houses may on application learn the previous history of any house in question as preserved in the Health-department. This practice insures the keeping of the houses in proper sanitary condition.

The remainder of the morning session was devoted to a study of tuberculosis in its various aspects.

DR. A. M. COOPER, of Point Pleasant, read a paper on the "Contagious Aspect of Tuberculosis in Married People," as viewed from an experience of thirty-eight years. He adhered to the hereditary theory in regard

to the etiology of the disease, and is a non-believer in the contagious theory. He quoted a series of over fifty instances of death in married persons without any immediate deleterious effect upon the surviving husband or wife.

DR. LAWRENCE F. FLICK, of Philadelphia, read a paper on "Prophylaxis in the Treatment of Tuberculosis," which is to appear in a future number of THE MEDICAL NEWS.

DR. THOMAS J. MAYS, of Philadelphia, read a paper on the "Strychnin Treatment of Pulmonary Consumption." He considers strychnin as one of the most important of the therapeutic measures. He places in the treatment rest as the most important factor; secondly, nutritious food; and, thirdly, strychnin. Strychnin acts upon the nervous system, stimulating it in small doses. The proper dose should be that which will produce the greatest amount of stimulation. The patient should begin with comparatively small doses, $\frac{1}{2}$ grain by the mouth, given three or four times per diem, and gradually this should be increased. In some cases $\frac{1}{10}$ or $\frac{1}{8}$ grain may be taken. A child may take $\frac{1}{2}$ grain four times daily without detriment. The drug exerts an excellent effect upon the vomiting of phthisis and also upon the nervousness and sleeplessness. The dyspnea of pulmonary tuberculosis is primarily due to weakness of the nervous supply of the lungs. Strychnin will alleviate this condition. It tones up the weak heart and is of value in correcting the anemia of the disease.

DR. WILLIAM P. MUNN, of Denver, Colorado, spoke on "Colorado Climate for Consumptives," saying that certain cases of tuberculosis of the lungs may recover spontaneously without being recognized or treated. The most essential element, both of assault and resistance, is environment, and especially is climate to be considered in this respect. The children of tuberculous parents do not develop the disease if placed in a high climate such as that of Colorado. Dryness, sunshine, purity of atmosphere, rarity of atmosphere, and an equable temperature are the beneficial elements of such an altitude.

"Notes, including those of Autopsy, of a Case of Tuberculous Meningitis" were presented by DR. DANIEL LONGAKER, of Philadelphia, after which the meeting was open for discussion upon the subject of tuberculosis.

DR. S. S. COHEN, of Philadelphia, believed, with Dr. Munn, that pulmonary tuberculosis should be classed among the curable diseases. Acute miliary tuberculosis and phthisis florida, on account of their rapid course and general involvement, must for the present be excluded from the curable list. Drug treatment is necessary in all cases, but the best treatment is the hygienic, by teaching the patient how to properly inflate the lungs, or by giving inhalations of compressed air, or by causing expiration into rarefied air.

DR. J. M. ANDERS, of Philadelphia, said that it is probable that the tubercle-bacillus does not multiply outside of the body. It survives the severest exposure and the most active chemical reagents, however. The modern asphaltum pavement increases the dust of the street and also the danger of infection; hence street-cleaning and street-sprinkling should be enforced. Most adults have at one time or other harbored the tubercle-bacillus; but only contract the disease when in a suitable condition for so doing. The subject of immunity

and what comprises it should be well studied. He urged the importance of an early recognition of the disease. The use of tuberculin will help in this.

DR. J. C. WILSON, of Philadelphia, considered pulmonary tuberculosis as preëminently a contagious disease, as much so as is scarlet fever, and that even there is a greater contagiousness and tendency to this disease than to scarlet fever. He thinks that perhaps the early lesions of the disease which have become obsolescent may confer an immunity.

DR. J. S. COHEN, of Philadelphia, called attention to the lessened mortality of pulmonary tuberculosis. Until the last ten or twelve years the disease caused from one-fourth to one-third of all the deaths in this city; now it causes between one-sixth and one-seventh of the deaths. He would suggest the use of mares' milk instead of cows' milk, as horses never contract tuberculosis. Spirituous liquors he claims may be dispensed with, as has been proved by a year of treatment without their use in the Home for Consumptives at Chestnut Hill.

DR. WILLIAM E. HUGHES, of Philadelphia, said that while exceedingly rare, tuberculosis may occur in horses. The natural immunity of the horse is quite distinct from acquired immunity. He urged the early recognition of the acute form of tuberculosis simulating croupous or broncho-pneumonia, and that form affecting serous membranes first, as the peritoneum or pleura.

The resolution offered on May 16th by DR. I. C. GABLE, relative to the appointment of an inspector to aid the State Board of Examiners, was adopted.

The Vice-President, DR. S. S. TOWLER, offered the following communication, which received unanimous indorsement:

The Medical Society of the State of Pennsylvania respectfully presents the following facts to the Judicial Council of the American Medical Association, and asks its action thereon:

The Trustees of the *Journal of the American Medical Association*, at the meeting of the Association in 1892, at Detroit, were directed to abstain from publishing in the advertising columns of the *Journal* advertisements of secret nostrums. Such advertisements are, however, still published in the *Journal*, in defiance of the resolution.

In the *Journal* of April 7, 1894, there is advertised a Sanitarium Association which openly offers stock to those physicians who will send patients to it for treatment.

In the opinion of the Medical Society of the State of Pennsylvania, these advertisements are improper and unethical, according to the letter and spirit of the Code of Ethics of the Association. The said Medical Society of the State of Pennsylvania, therefore, asks the Judicial Council to take such action in regard to the said Trustees as is demanded to sustain the integrity of the Association and enforce the provisions of its Code of Ethics.

A resolution offered by DR. FRANK WOODBURY, of Philadelphia, was adopted, calling upon the Medical Council and State Board of Health, in their official and other publications, to refrain from the use of any sectarian designation of the Board of Examiners representing this Society, of candidates coming up for examination from the regular schools, as the sectarian designation would imply a restricted practice of medicine.

The following were appointed a Committee on Legis-

lation: Drs. I. C. Gable, York; R. B. Watson, Clinton; H. S. Orth, Dauphin; Alex. Craig, Lancaster; and C. W. Youngman, Lycoming.

DR. S. BIRDSALL, of Susquehanna, offered resolutions, which were adopted, approving of the bill now pending in Congress for the establishment of a National Bureau of Public Health in the Department of the Interior, as tending to promote the sanitary interests and general welfare of the country, and calling upon the Pennsylvania Senators and Representatives to give the bill their earnest and active support.

AFTERNOON SESSION.

The annual "Address in Ophthalmology" was delivered by DR. GEORGE E. DE SCHWEINITZ, of Philadelphia. He mentioned, in reviewing the progress in ophthalmology, the stricturotome of Dr. C. H. Thomas, of Philadelphia, as a valuable addition to the oculist's armature. He also strongly indorsed the action of the Ophthalmologic Section of the American Medical Association as to the prophylaxis of ophthalmia neonatorum. Over 70 per cent. of cases of blindness in infants are caused by the disease, and every effort should be made to secure the passage of such a law in Pennsylvania. He spoke of the uses and abuses of mercury in eye-disease, protesting against the needless use of this drug in incurable cases.

DR. S. LEWIS ZIEGLER, of Philadelphia, read a paper on the "Treatment of Corneal Ulcer by the General Practitioner." He said that corneal ulcer was common as an expression of the strumous diathesis. Chronic constipation, errors in diet, and poor hygiene are common causes. The danger to vision is due to the central location of the ulcer. The treatment should be applied both to the nose and to the eye. Local application of compound tincture of benzoin to the nasal mucous membrane is most essential. The eye-wash consists of sodium borate, boric acid, camphor water, and distilled water. Hot stupes for fifteen minutes, three or four times daily, may be of service. The diet should be regulated, the bowels kept open, and the relaxed condition of the skin treated by daily baths in salt water, with massage.

DR. CHARLES P. NOBLE, of Philadelphia, read a paper on "Uterine Fibroids." He dwelt on the uncertainty of the spontaneous cure of fibroid tumors. The mortality of hysterectomy has been so greatly reduced that the operation is now almost as safe as the operation for the removal of the ovaries. He especially recommended the operation with intra-abdominal, but extra-peritoneal treatment of the stump as devised by Dr. Baer, of Philadelphia. The ligation of the uterine arteries has recently been suggested as a treatment of fibroid tumors. This has been done in the hope of bringing about atrophy of the tumor. Ergot and electricity in the treatment of the tumors have failed. He believes in removing fibroid tumors as soon as discovered, to avoid the possibility of pregnancy and years of invalidism.

DR. MASSEY, of Philadelphia, contended that the mortality of hysterectomy is far greater than that of fibroid tumors left alone. He said that electricity is not used to cause disappearance of the tumor, but to produce a symptomatic cure to arrest the growth and to cause retrogression in its size.

DR. J. M. FISHER, of Philadelphia, called attention to the danger of stirring up a latent pyosalpinx or other grave condition by the use of electricity. He had used electricity, and had found the tumor cease to grow under its use, but he had noticed that when its use was discontinued growth was resumed. In operating for hysterectomy he favors packing the vagina with gauze to lift the tumor from the pelvis.

DR. W. E. ASHTON, of Philadelphia, doubts whether electricity has any effect on the tumors except to control to a certain extent the hemorrhage. He claimed that it was impossible to tell whether or not there was a co-existent tubal disease, and as this was a common complication, electricity should be absolutely contra-indicated in any case. The extra-peritoneal method of treatment of the stump gave rise to danger of hernia, and prolonged convalescence from gangrene of the stump.

The newly-elected President, DR. JOHN B. ROBERTS, of Philadelphia, was introduced by DR. McCORMICK, the retiring President. After expressing his appreciation of the honor conferred upon him, Dr. Roberts announced the following as the speakers on various topics for the next meeting, in Chambersburg: Obstetrics, DR. W. B. ULRICH; Surgery, DR. C. S. STEVENS; Medicine, DR. I. C. GABLE; Hygiene, DR. HILDEGARDE H. LONGSDORF; Mental Diseases, DR. F. X. DERCUM; Otology, DR. L. H. TAYLOR.

CORRESPONDENCE.

THE TREATMENT OF CONFLUENT VARIOLA.

To the Editor of THE MEDICAL NEWS,

SIR: I desire to offer the profession through your columns a suggestion upon the treatment of confluent variola.

With a camel's-hair brush paint a large surface, preferably the back, with ichthylol (ammonium sulpho-ichthylate), completely coating the surface treated. After permitting it to dry a while, or immediately if necessary, cover with absorbent cotton and permit the patient to lie down, thus pressing the material tightly against the surface, without soiling the bedding.

In a few days the ointment and cotton will peel off, leaving the surface dry. The remedy appears to destroy the microorganism. It lowers temperature, controls itching, lessens nervousness, and slows pulse and respiration when applied during the stage of secondary absorption, which is frequently so fatal. My observations were made upon a few cases in the Chicago Pest-house.

Very truly yours,

S. W. BURSON.

CHICAGO, ILL.

THE FIN DE SIÈCLE SURGEON.

A Rambling Lay, by One of the Laity.

Let others sing of the gentle spring, in the old familiar way,
With its robins and moons, its sighs and its spoons, its skies of
blue and gray;
My muse shall refrain from this hackneyed strain—let progress
my watchword be!
I'll a tale unfold of the surgeon bold of the end of the centuree.

In olden days, when *in medias res* an egregious pain appeared,
When mysterious lumps and peculiar humps their crests in
defiance reared,
The things were few that the doctor could do to subdue either
growth or grieve,
But to ply with lotions and pills and potions of the good old
"business" stripe.

Though bravely he fought, he could work on naught but a
theoretical plan,
Nor form, as do we, an intimacy with the patient's innermost
man.
In this later age we have grown so sage that few things occasion
surprise,
But the doctor's pace in the modern race we view with wondering
eyes.

With his knife so true, and his theories new of microbes and
spores and germs,
With electric blaze, antiseptic ways, and astonishing technical
terms,
He leads in the van, and his fellow-man for concealment hasn't a
chance.
He is read like a book, and no innermost nook is hid from that
eagle glance.
If there's cause to suspect any ill effect produced by unseemly
meals,
The modern M.D. doesn't wait, not he, to ask how his patient
feels,
Nor to hear him state what he thinks he ate—but without any
useless fuss
He lets down a string with a bucket-like thing, and samples his
contents—thus!

Into dark recesses which baffle guesses he pokes his 'scope with
a grin,
Then turns on the light, and the luckless wight "all glorious is
within."
When intestine strife makes a burden of life, and obstructionist
lumps prevail,
Though the case be grave, to the surgeon brave there is no such
word as fail.

With a wide incision and free division he charges upon the foe,
Takes what he thinks best, and puts back the rest in the place
where it ought to go.
In a half-way measure he takes no pleasure, so fits out his man
beside
With the latest in rings, nickel buttons, and springs, and sutures
him up with pride.

In cases of fits which puzzle our wits, or in any queer brain mishap,
The troubled scenes he inspects by means of an osteoplastic flap;
Brain centers he wakes with galvanic quakes to aid his investiga-
tion—
All is clear to his sight by the modern light of cerebral localization.

He removes large hunks, or neat little chunks, as the needs of
the case demand;
If the patient is dull from too small a skull, he gives it a chance to
expand.
If a leg or an arm be a source of alarm, the surgeon, no whit
dismayed,
Takes the matter in hand, with his skewers and band, and a
sweep of his glittering blade.

But I fear that my song is becoming too long—achievements so
many and great
Cannot be reviewed in a fashion so crude, and I'll just be content
to state
That whatever's to blame in this mortal frame, wherever the
source of ill,
He cannot be caught, he's ready for aught that challenges nerve
and skill.

And if a condition defy recognition, with neatness and brilliant despatch,
He describes the same, he concocts a name, and a brand new
"method" to match.
Intrepid and sage, the flower of his age, a marvel of marvels he—
Both fame and gold gets the surgeon bold at the end of the
century!

C. ROCKWELL.

NEWS ITEMS.

Meetings of Philadelphia Medical Societies:

	Meets.	Next meeting.
College of Physicians,	1st Wednesday, Sept.—June.	June 6
County Medical Society,	2d and 4th Wednesdays, Sept.—June.	June 13
Obstetrical Society,	1st Thursday, Sept.—June.	June 7
Pathological Society,	2d and 4th Thursdays, Sept.—June.	June 14

Meetings of State and National Medical Societies:

	Meets.	Next meeting.
American Academy of Medicine.	Aug. 29, 30	Jefferson, N. H.
American Association of Genito-urinary Surgeons.	May 29—June 1	Washington, D. C.
American Association of Obstetricians & Gynecologists.	Sept. 19-21	Toronto, Ont.
American Climatological Association.	May 29—June 1	Washington, D. C.
American Dermatological Association.	May 29—June 1	Washington, D. C.
American Electro-therapeutic Association.	Sept. 25-27	New York City.
American Gynecological Society.	May 29-31	Washington, D. C.
American Laryngological Association.	May 30—June 1	Washington, D. C.
American Medical Association.	June 5	San Francisco, Cal.
American Medico-Psychological Association.	June 13, 1895	Denver, Col.
American Neurological Association.	May 29—June 1	Washington, D. C.
American Ophthalmological Society.	May 30, 31	Washington, D. C.
American Orthopedic Association.	May 29—June 1	Washington, D. C.
American Otological Society.	May 29	Washington, D. C.
American Pediatric Society.	May 29—June 1	Washington, D. C.
American Physiological Society.	May 29-31	Washington, D. C.
American Surgical Association.	May 29—June 1	Washington, D. C.
Association of American Anatomists.	May 29—June 1	Washington, D. C.
Association of American Medical Colleges.	June 6	San Francisco, Cal.
Association of American Physicians.	May 29—June 1	Washington, D. C.
Association of Military Surgeons of the United States.	May, 1895	Buffalo, N. Y.
British Medical Association.	July 31—Aug. 3	Bristol, Eng.
Canadian Medical Association.	September	St. John, N. B.
Colorado State Medical Society.	June 19-21	Denver, Col.

	Meets.	Next meeting.
Indian Territory Medical Association.	June 12	Claremore, I. T.
International Congress of Hygiene and Demography.	Sept. 2-9	Budapest, Austria.
International Congress of Ophthalmology.	August 7-10	Edinburgh, Scotland.
Kentucky State Medical Society.	June 6-8	Shelbyville, Ky.
Louisiana State Medical Society.	May 29	New Orleans, La.
Maine Medical Association.	June 13	Portland, Me.
Massachusetts Medical Society.	June 12, 13	Boston, Mass.
Medical Society of the State of California.	April 16, 1895	San Francisco, Cal.
Medical Society of Delaware.	June 12	Lewes, Del.
Medical Association of Georgia.	April 17, 1895	Savannah, Ga.
Medical Society of New Jersey.	June 26, 1894	Lake Hopatcong, N. J.
Medical Society of the State of New York	Feb. 5, 1895	Albany, N. Y.
Medical Society of the State of Pennsylvania.	May 21, 1895	Chambersburg, Pa.
Medical Society of the State of Tennessee.	April 9, 1895	Nashville, Tenn.
Medical Society of Virginia.	October.	Richmond, Va.
Medical Society of West Virginia.	July.	Berkeley Spgs., W. Va.
Medico-Legal Society.	Dec. 12	New York.
Minnesota State Medical Society.	June 20-22	St. Paul, Minn.
Mississippi Valley Medical Association.	Nov. 20-23	Hot Springs, Ark.
New Hampshire Medical Society.	June 18, 19	Concord, N.H.
New Mexico Medical Society.	September.	Albuquerque, N. M.
New York State Medical Association.	October 9-11	New York City
Ohio State Medical Society.	May 15, 1895	Columbus, O.
Ontario Medical Association.	June 6	Toronto, Can.
Oregon State Medical Society.	June	Portland, O.
Rhode Island Medical Society.	June 7	Providence, R. I.
South Dakota State Medical Society.	June 13	Huron, S. D.
Texas State Medical Society.	April 23, 1895	Dallas, Tex.
Tri-State Medical Society.	October 9	Atlanta, Ga.
Vermont State Medical Society.	October 11, 12	Montpelier, Vt.

The Prevention of Tuberculosis.—The New York Board of Health has issued a circular of information to physicians regarding the measures adopted by the Board for the prevention of tuberculosis in the City of New York.

The Department will hereafter register the name, address, sex, and age of every person suffering from tuberculosis in the city of New York, so far as such information can be obtained, and respectfully requests that hereafter all physicians forward such information on the postal cards ordinarily employed for reporting cases of contagious disease. This information will be solely for the use of the Department, and in no case will visits be made to such persons by the inspectors of the Department, nor will the Department assume any sanitary surveillance of such patients, unless the person resides in a tenement-house, boarding-house, or hotel, or unless the attending physician requests that an inspection of the premises be made; and in no case in which the person resides in a tenement-house, boarding-house, or hotel will any action be taken if the physician requests that no visits be made by inspectors, and is willing himself to deliver circulars of information, or furnish

such equivalent information as is required to prevent the communication of the disease to others.

When the Department obtains knowledge of the existence of cases of pulmonary tuberculosis in tenement-houses, boarding-houses, or hotels (unless the case has been reported by a physician and he requests that no visits be made), inspectors will visit the premises and family, will leave circulars of information, and instruct the person suffering from the disease and the family as to the measures which should be taken to guard against its spread, and, if it is considered necessary, will make such recommendations for the cleansing or renovation of the apartment as may be required to render it free from infectious matter.

In all cases in which it comes to the knowledge of the Department that premises which have been occupied by a tuberculous person have been vacated by death or removal, an inspector will visit the premises and direct the removal of infected articles, such as carpets, rugs, bedding, etc., for disinfection, and will make such written recommendations to the Board as to the cleansing and renovation of the apartment as may be required. An order embodying these recommendations will then be issued to the owner of the premises, and compliance with this order will be enforced. No other persons than those there residing at the time will be allowed to occupy such apartments until the order of the Board has been complied with. Infected articles, such as carpets, rugs, etc., will be removed by the Department, disinfected, and returned, without charge to the owner.

For the prevention and treatment of pulmonary tuberculosis it becomes of vital importance that a positive diagnosis shall be made at the earliest possible moment, and that the value of bacteriologic examinations of the sputa for this purpose may be at the service of physicians in all cases not under treatment in hospitals, the Department is prepared to make such bacteriologic examinations for diagnosis, if samples of the sputa, freshly discharged, are furnished in clean, wide-necked, stoppered bottles, accompanied by the name, age, sex, and address of the patient, duration of the disease, and the name and address of the attending physician. Bottles for collecting such sputa, with blank forms to be filled in, can be obtained at any of the drug-stores now used as stations for the distribution and collection of serum-tubes for diphtheria-cultures. After the sputum has been obtained, if the bottle, with the accompanying slip filled out, is left at any one of these stations, it will be collected by the Department, examined microscopically, and a report of the examination forwarded to the attending physician, free of charge.

The authorities of all public institutions, such as hospitals, dispensaries, asylums, prisons, homes, etc., will be required to furnish to the Department the name, sex, age, occupation, and last address of every tuberculous patient coming under observation within seven days of such time.

Circulars of information for the general public have been issued in English, German, Italian, and Hebrew.

The Philadelphia Board of Health has not deemed it wise to go so far as the New York Board. It has, however, issued a circular detailing the most important means of preventing the spread of tuberculosis, and volunteers to undertake the disinfection of rooms that

have been occupied by tuberculous patients, and of beds, bedding, carpets, etc., upon notice sent to the Health Officer, at City Hall.

The American Neurological Association will hold its twentieth annual meeting at Washington, D. C., on May 29, 30, 31, and June 1, 1894. The following program is announced:

"Report of a Case of Spinal Syphilis and One of Intracranial Syphilis, with Microscopic Specimens," by Landon Carter Gray, New York. "Merycism," by William A. Hammond, Washington, D. C. "Inebriety as a Disease Analytically Studied," by R. M. Phelps, Rochester, Minn. "A Case of Myxedema treated with Sheep's Thyroid," by Samuel Ayres, Pittsburg. "Craniectomy in a Child Two Years Old," by Samuel Ayres, Pittsburg. "The Genesis of Hallucinations, Illusions, and Delusions," by H. A. Tomlinson, St. Peter. "A Case of Pontine Embolism, with Paralysis of Ocular and of Orbiculo-palpebral Movements of One Side and of the Limbs on the Other, with Remarks on Focal Lesions in the Pons," by Charles K. Mills and John Zimmer, Philadelphia. "Thyroidectomy in a Case of Graves's Disease," by J. Arthur Booth, New York. "Crossed Knee-jerks," by Guy Hinsdale and J. Madison Taylor, Philadelphia. "The Insanity of Puberty and Adolescence," by Henry R. Stedman, Boston. "Lumbar Puncture (Quincke) for the Withdrawal of Cerebro-spinal Fluid," by William Browning, Brooklyn. "Gastro-intestinal Neurasthenia, *i. e.*, Nervous Dyspepsia," by Leonard Weber, New York. "Some Problems Relating to the Cerebral Fissures," by Burt G. Wilder, Ithaca. "Exhibition of a Suicide's Brain, with Two Pistol-ball Wounds," by Burt G. Wilder, Ithaca. "Exhibition of a Neurological Percussion Hammer," by William C. Krauss, Buffalo. "Cerebral Edema," by George J. Preston, Baltimore. "The Non-operative Treatment of Metatarsalgia," by V. P. Gibney, New York. "A Case of Exophthalmic Goiter cured by Thyroidectomy," by Frederick Peterson, New York. "Cerebral Hemorrhage: Notes on its Cause and Premonitory Symptoms," by Charles L. Dana, New York. "The Cortical Localization of the Cutaneous Sensations," by Charles L. Dana, New York. "Exhibition of Sections from the Mid-brain, Pons, Medulla Oblongata, and Spinal Cord, from a Case of Chorea," by James Hendrie Lloyd, Philadelphia. "Report of a Case of Amyotrophic Lateral Sclerosis in a Child," by Charles Henry Brown, New York. "The Significance of the Exaggerated Knee-jerk and Ankle-clonus and their Relation to Diagnosis," by Graeme M. Hammond, New York. "A Case of Congenital Hydrencephalocele," by Edward B. Angell, Rochester. "A Case of Infantile Hemiplegia, Imbecility, and Epilepsy; Craniotomy; Marked Improvement," by Edward B. Angell, Rochester. "Experimental Investigations of the Physical and Chemical Action of the Galvanic Current upon the Living Organism," by George W. Jacoby and F. Schwyzler, New York. "Report of a Case of Diffuse Myelitis following Spastic and Choreic Symptoms of Three Years' Duration; with Specimens," by F. X. Dercum, Philadelphia. "Traumatism as a Cause of Locomotor Ataxia; a critical examination of the evidence, including a Report of Three Cases," by Morton Prince, Boston.

The American Climatological Association will hold its eleventh annual meeting at Washington, D.C., May 29, 30, 31, and June 1, 1894. The program includes the following papers:

"Alimentation in Pulmonary Disease," address by the President, Andrew H. Smith, New York. "The Relation which Alimentation should bear to Oxygenation in Lung Diseases," by Boardman Reed, Atlantic City. "The Methods and Value of Supervised Exercises and Diet in the Prophylaxis of Pulmonary Phthisis," by Glentworth R. Butler, Brooklyn. "The Importance of Mouth Cleanliness in the Prevention of Disease," by Clarence C. Rice, New York. "A Plea for the Earlier Recognition of Pulmonary Tuberculosis and Adoption of Proper Climatic Treatment," by H. B. Moore, Colorado Springs. "Three Years' Experience in the Sanitarium Treatment of Pulmonary Disease, near Boston," by Vincent Y. Bowditch, Boston. "Creosote, Guaiacol, and Benzoyl of Guaiacol in Phthisis," by Roland G. Curtin, Philadelphia. "Shall Anything be Done by Legal Authority to Prevent the Spread of Tuberculosis," by Frederick I. Knight, Boston. "Further Report of Cases of Phthisis treated at Colorado Springs," by S. E. Solly, Colorado Springs. "The Condition of the Heart in Diabetes and its Relation to Diabetic Coma," by Leonard Weber, New York. "Report of Cases of Chronic Heart Disease treated by the Schott Method of Baths and Gymnastics," by Robert H. Babcock, Chicago. "A New and Distinguishing Sign of Latent Aneurysm of the Aorta," by W. C. Glasgow, St. Louis. "Musical Nomenclature in Physical Diagnosis," by J. Hilyard Tyndale, New York. "Ozone in Phthisis, with Special Reference to the Pneumatic Cabinet," by Chas. E. Quimby, New York. "The Comparative Rarity of Phthisis in the Highlands of Pennsylvania and the Adjacent Counties of New York," by Guy Hinsdale, Philadelphia. "Meteorological Data of Colorado," by Samuel A. Fisk, Denver. "Sensible Temperatures," by Hon. Mark W. Harrington, Chief of Weather Bureau, Washington. "Beriberi," by Judson Daland, Philadelphia. "Some Practical Observations on So-called Malaria," by William H. Daly, Pittsburg. "The Shock of Acute Disease," by John H. Musser, Philadelphia. "The Physical Signs of Cellular Edema of the Lung considered in their Relation to the Pathological Changes," by W. C. Glasgow, St. Louis.

The American Ophthalmological Society will hold its thirtieth annual meeting on the 30th and 31st of May, at Washington, D. C., in connection with the third triennial session of the Congress of American Physicians and Surgeons. Titles of papers to be read have been received as follows: "Two Recent Magnet Operations; one an Ideal Success, the other a Total Failure," by H. Knapp. "A Demonstration of some Photo-micrographs of the Human Retina," by William F. Norris. "The Practical Value of the Ophthalmometer," by Edward Jackson. "Family History of Iridocyclitis and Coloboma Iridis; Cataract Operation on Two Members," by D. De Beck. 1. "A Clinical and Microscopic Study of Two Cases of Glaucoma associated with Intra-ocular Hemorrhages;" 2. "Some additional Studies on the Clinical Value of repeated Careful Correction of Manifest Refractive Error in Plastic Iritis," by C. A. Oliver. "Tumor of

the Optic Nerve," by Swan M. Burnett. 1. "Degeneration in the Retinal Vessels, with Hemorrhages in the Retina and Vitreous in Gouty Patients;" 2. "Recent Experiences in the Treatment of Detachment of the Retina," by C. S. Bull. "Pseudo-erysipelas Periorcularis Medicamentosa," by Edward Fridenberg. 1. "Some Typical Examples of Subnormal Accommodative Power;" 2. "The Ophthalmoscope does not always Reveal Latent Hypermetropia, with Notes of a Case;" 3. "A Case of Ophthalmitis Suppurativa following Discussion of Capsular Opacity," by S. Theobald. "Removal of Steel from the Vitreous," by E. E. Holt. 1. "Colloid Disease in the Macular Region analogous in appearance to the so-called 'Drusen' in the Nerve-head;" 2. "Epithelioma of the Lid; Excision and Transplantation of the Skin without a Pedicle;" 3. "Concerning Monocular Diplopia, with Cases," by G. E. de Schweinitz. 1. "Two Cases of Sympathetic Inflammation;" 2. "A Portable Perimeter, with its Apology for Existence," by F. M. Wilson. "So-called Muscular Asthenopia," by G. W. Hale. "The Practical Value of Low-grade Cylinders," by J. A. White. "Results of Repeated Examinations of the Eyes of the Boys in the Penn Charter School of Philadelphia," by B. A. Randall. "Foreign Bodies in the Orbital Cavity," by W. B. Johnson. "Rupture of the Lymph-sheath of a Retinal Vein," by A. G. Heyl.

The Association of American Anatomists will hold its sixth annual session, May 29, 30, 31, and June 1, 1894, at Washington, D. C., in connection with the Congress of American Physicians and Surgeons, of which this Association is a constituent member.

The following papers are to be read:

"Morphology as a Factor in the Study of Disease," by Harrison Allen, Philadelphia. The discussion will be led by Thos. Dwight, Frederick H. Gerrish, Frank Baker, Burt G. Wilder. "A Plea for a Methodically-written Text-book on Anatomy," by Edmond Souchon, New Orleans. "In our Two Years' Study of Anatomy, what part of the Subject should be Covered in the First Year's Work? What Part in the Second?" by A. D. Bevan, Chicago. "Identity of Structure of Protoplasm with that of Striped Muscle," by Carl Heitzmann, New York City. "Study of the Human Cranium," by Harrison Allen. "Relation of the Olfactory to the Cerebral Portion of the Brain," by Burt G. Wilder. "On the Shortening of the Face-axis in the Evolution of the Mammalia," by Harrison Allen. "Theoretical Anatomy of the Sympathetic System," by Wm. P. Carr, Washington, D. C. "Terminology of the Nerve-cell," by Pierre A. Fish, Ithaca, N. Y. "Methods of Estimating the Height from Parts of the Skeleton," by Thos. Dwight. "A Study of the Muscular Tunic of the Large and Small Intestine of Man in the Region of the Cecum," by Robert Orton Moody, Yale University. "A Note on the occurrence of the Scapulo-clavicular Muscle," by Mr. Moody. "The Female External Genital Organs: a Criticism on Current Anatomical Description," by D. S. Lamb, Washington, D. C. "Perineum and Perineal Body," by D. K. Shute, Washington, D. C. "Notes on the Anatomy of the Orang," by B. G. Wilder.

The American Surgical Association will hold its annual meeting at Washington, D. C., May 29, 30, 31, and June 1,

1894. In addition to those already announced (News, March 17, p. 300), the following papers are to be read:

"The Surgical Treatment of the so-called Surgical Kidney," by R. F. Weir, New York. "Surgery of the Ureters," by Christian Fenger, Chicago. Discussion by M. H. Richardson, H. H. Mudd, C. H. Mastin, and Ford Thompson. By invitation: "Treatment of Malignant Tumors with the Toxins of Erysipelas," by William B. Coley, New York. "Hernia," by W. T. Bull, New York. "Cases of Extra-uterine Pregnancy, with Remarks," by M. H. Richardson, Boston. "Vinous Tumor of the Diploë," by L. S. Pilcher, Brooklyn. "A Case of Strangulation of Meckel's Diverticulum, caused by Volvulus of the Ileum; Operation; Death," by J. W. Elliot, Boston. By invitation: "Bone-grafting in Ununited Fractures, by a New Method," by A. M. Phelps, New York. "Mooted Points as to Fractures of the Arm, with Notice of an improved Splint," by J. McFadden Gaston, Atlanta, Ga. "The Removal of Stone in the Bladder, with the Presentation of a new Lithotrite," by W. S. Forbes, Philadelphia. "Extirpation of the Larynx," by W. H. Carmalt, New Haven, Conn. "Abscess of the Thyroid Gland," by Joseph Ransohoff, Cincinnati.

The Association of American Medical Colleges.—At the fifth annual meeting of the Association of American Medical Colleges at San Francisco on June 6, 1894, the Barnes Medical College, of St. Louis, will present a resolution that, in order to afford to the teacher and student alike, such time as is necessary to complete a proper curriculum in each department of medicine, of all regular medical students who intend graduating at the Barnes Medical College at the close of the session of 1899 and 1900, and in all subsequent classes, four years' medical study and attendance upon four regular courses of medical and clinical lectures of not less than five months each shall be required; provided, that graduates of literary colleges, who have taken a course of scientific study, graduates of schools of pharmacy, and graduates of schools of dental surgery, may be admitted to the second year's work and course of lectures without examination. The delegate of the Barnes Medical College to the meeting of the Association is instructed to vote upon all questions arising before that body, in accordance with the foregoing resolution, and to use all honorable means to secure the unanimous adoption, by all colleges, of requirements for graduation of students, of four regular courses of lectures of not less than five months each in different years.

State Board of Medical Examiners of New Jersey.—A special meeting of this Board for the examination of candidates desiring to practise medicine in this State will be held in the Capitol at Trenton, on the third Tuesday of June (the 19th), and it will be the last meeting for the examination of candidates held under the present medical law, as the new law enacted at the recent session of our Legislature goes into effect July 4, 1894. This new law requires all candidates to have a competent common school education, to be graduates in medicine and surgery, which they shall have studied at least four years, and upon which they shall have taken three full courses of lectures, before they can be admitted to the

examination for a license, and then all will be subjected to the same examination; it also empowers the Board to accept, in lieu of an examination, the certificates of other State Examining and Licensing Boards having similar requirements.

The Meeting of the American Medical Association.—The entire work of the Association meeting in San Francisco, June 5th to 8th, inclusive, will be done in Odd Fellows' Building, corner Market and Seventh Streets.

Registration will begin in Marble Hall, Palace Hotel, on Monday, June 4th, when all who arrive early enough should register to avoid the rush on Tuesday. Working hours of the Sections will be 9 to 12 and 2 to 5, except forenoon of the first day.

The General Assembly will convene at 10 o'clock, on Tuesday.

Visitors desiring to engage rooms in advance can do so by communicating directly with the hotels, or with R. A. McLean, No. 305 Kearney Street, Chairman Committee on Hotels. Headquarters at the Palace Hotel.

Railroad tickets will be good for return till July 15th. Members will therefore have time to make numerous side excursions in the State after the meeting.

The Medical Association of Georgia adheres to the Code.—

At the late meeting of the Medical Association of Georgia Dr. J. McFadden Gaston, of Atlanta, introduced the following resolution, which was unanimously adopted:

"Whereas, The American Medical Association at its last meeting provided for an expression in regard to the Code of Ethics from the different State Associations, to be laid before the forthcoming meeting at San Francisco, it is hereby

"Resolved, That the Medical Association of Georgia reasserts its adoption of, and conformity to, the Code of Ethics of the American Medical Association, as heretofore recognized by that body, and authorizes this record of its adherence to the same."

The Transactions of the Pan-American Medical Congress.—

The Proceedings of the First Pan-American Medical Congress were compiled by the Secretary-General, Dr. Charles A. L. Reed, and transmitted to the Department of State in November, 1893. By recent joint resolution of the Senate and House of Representatives the manuscript was transmitted to Congress, and a concurrent resolution has been adopted directing the Public Printer to print the same. The manuscript is now in the office of the Public Printer, and will be put to press at once under the supervision of the Editorial Committee, of which Prof. John Guitéras, of Philadelphia, is the chairman.

The Wistar Institute of Anatomy and Biology of the University of Pennsylvania was formally opened on May 21st. The keys were presented by the Assistant Director, Dr. Milton J. Greenman, to the Provost, Dr. Pepper, who made an address appropriate to the occasion. Dr. William Osler also delivered an address. Prof. Libby, of Princeton, made some congratulatory remarks, and the Director of the Institute, Dr. Harrison Allen, made the concluding address, after which the building and its appurtenances were inspected.

Mr. Charles C. Harrison, already well known for his great interest in the University of Pennsylvania, has been elected Provost in succession to Dr. Pepper. The acceptance is only provisional, but it is hoped that Mr. Harrison can be induced to retain permanently the important trust.

Dr. Adam Politzer, the distinguished otologist of Vienna, and hitherto Extraordinary Professor of Otology in the University of Vienna, has been made an ordinary professor.

New York State Medical Reporter is the name of a new "monthly journal of medicine and surgery," edited by Dr. H. Bronson Gee, and published at Rochester, N. Y.

The Archives of Pediatrics will, with the July issue, be edited by Dr. Dillon Brown. Exchanges should be addressed: Editor, *Archives of Pediatrics*, 40 East 57th Street, New York.

Dr. Karl Stoerk has been made Ordinary Professor of Laryngology in the University of Vienna.

Dr. Malassez has succeeded Charcot in the chair of Pathological Anatomy in the University of Paris.

Dr. Joseph Gruber has been made Ordinary Professor of Otology in the University of Vienna.

BOOKS AND PAMPHLETS RECEIVED.

Venereal Memoranda. A Manual for Students and Practitioners. By P. A. Morrow, A.M., M.D. New York: William Wood & Co., 1894.

The Commoner Animal Parasites of the Skin. By A. H. Ohmann-Dumesnil, A.M., M.D. Reprinted from the St. Louis Medical and Surgical Journal, 1893.

The National Dispensatory. Containing the Natural History, Chemistry, Pharmacy, Actions, and Uses of Medicines, including those Recognized in the Pharmacopeias of the United States, Great Britain, and Germany, with Numerous References to the French Codex. By Alfred Stillé, M.D., LL.D.; John M. Maisch, Phar.D.; Charles Caspari, Jr., Ph.G.; and Henry C. C. Maisch, Ph.G., Ph.D. Fifth edition. Philadelphia: Lea Brothers & Co., 1894.

Seven Amputations at the Hip-joint. By W. L. Estes, M.D. Reprinted from the Lehigh Valley Medical Magazine, vol. v, No. 2.

The Modern Climatic Treatment of Invalids with Pulmonary Consumption in Southern California. By P. C. Remondino, M.D. The Physician's Leisure Library. Detroit: George S. Davis, 1893.

A Further Study of Hysterical Cases and their Fields of Vision. By John K. Mitchell, M.D., and G. E. de Schweinitz, M.D. Reprinted from the Journal of Nervous and Mental Disease, 1894.

Glaucoma. By James Wallace, M.D. Reprinted from the University Medical Magazine, 1893.

Gonorrhreal Ophthalmia. By James Wallace, M.D. Reprinted from the University Medical Magazine, 1894.

Eye-Paralyses. By John Amory Jeffries, M.D. Reprinted from the Boston Medical and Surgical Journal, 1892.

Transactions of the Texas State Medical Association. Twenty-fifth Annual Session. Galveston: Knapp Bros., Printers and Publishers, 1893.

Analysis of One Hundred and Thirty-three Cases of Hernia Operated upon for the Purpose of Radical Cure. By Henry O. Marcy, A.M., M.D., LL.D. Reprinted from the Journal of the American Medical Association, 1893.

Medical Report of the Philadelphia Dispensary for Skin Diseases, covering a period of Ten Years. By Henry W. Stelwagon, M.D. Pamphlet. 1893.

Transactions of the American Gynecological Society. Vol. XVIII. For the year 1893. Philadelphia: Wm. J. Dornan, Printer, 1893.

The Modern Eye, with an Analysis of 1300 Errors of Refraction. By W. F. Southard, A.M., M.D. Reprinted from the Pacific Medical Journal, 1893.

Brain-preservation, with a Résumé of some Old and New Methods. By Pierre Augustine Fish, B.S. Reprinted from the Wilder Quarter-Century Book, 1893.

Some Practical Experiences with Muscular Anomalies. By T. E. Murrell, M.D. Reprinted from the Journal of the American Medical Association, 1893.

A New Method of Direct Fixation of the Fragments in Compound and Ununited Fractures. By Nicholas Senn, M.D., Ph.D., LL.D. Reprinted from the Annals of Surgery, 1893.

An Outline of the Embryology of the Eye, with Illustrations from Original Pen Drawings by the Author. By Ward A. Holden, A.M., M.D. The Cartwright Prize Essay for 1893. New York: G. P. Putnam's Sons, 1893.

A Manual of Diseases of the Nervous System. By W. R. Gowers, M.D., F.R.C.P., F.R.S. Second edition, revised and enlarged. Vol. II. Philadelphia: Blakiston, Son & Co., 1893.

International Clinics: A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-urinary Surgery, Gynecology, Ophthalmology, Laryngology, Otology, and Dermatology. By Professors and Lecturers in the Leading Medical Colleges of the United States, Great Britain, and Canada. Edited by John M. Keating, M.D., LL.D.; Judson Daland, M.D.; J. Mitchell Bruce, M.D., F.R.C.P.; and David W. Finlay, M.D., F.R.C.P. Vol. III. Third series. Philadelphia: J. B. Lippincott Company, 1893.

The Narrative of a Busy Life. An Autobiography. By Arthur Hill Hassall, M.D. London and New York: Longmans, Green & Co., 1893.

State Asylum for Insane, Columbus, Ohio. Pathological Bulletin, No. 1. Report upon the Pathology of a Case of General Paralysis. By Professor C. L. Herrick. Issued September, 1893.

Retrospect, Aspect, and Prospect in Medical Science. By Professor A. B. Macallum. Reprinted from the Canadian Practitioner, 1893.

Scabies: Its Symptoms, Diagnosis, and Treatment. By J. Abbott Cantrell, M.D. Reprinted from the Therapeutic Gazette, 1893.

Bureau of Education. Circular of Information, No. 7, 1893. Statistics of Public Libraries in the United States and Canada. By Weston Flint, Statistician of the Bureau of Education. Washington: Government Printing Office, 1893.

New Truths in Ophthalmology as Developed by G. C. Savage, M.D. Thirty-two illustrations. Nashville, Tenn.: Printed at the Publishing House of the M. E. Church, South, 1893.

The Diseases of Childhood. (Medical.) By H. Bryan Donkin, M.D. New York: William Wood & Co., 1893.

U. S. Department of Agriculture. Bureau of Animal Industry, Bulletin No. 3. Miscellaneous Investigations concerning Infectious and Parasitic Diseases of Domesticated Animals. By F. L. Kilbourne, Veranus A. Moore, E. C. Schroeder, Theobald Smith, and C. W. Stiles. Washington: Government Printing Office, 1893.

Report of the Surgeon-General of the Army to the Secretary of War for the Fiscal Year ending June 30, 1893. Washington: Government Printing Office, 1893.

Fenocolla e Malaria. Memoria di A. Cicognani. Estratto dalla Rassegna Medica di Bologna, Anno 1893. Bologna: Prem. Tip. L. Andreoli, 1893.

Pyogenic Infective Diseases of the Brain and Spinal Cord. Meningitis, Abscess of Brain, Infective Sinus Thrombosis. By William MacEwen, M.D., Glasgow. New York: MacMillan & Co., 1893.

Annual Report of the Health Officer of the Port of New York for the Year 1892. Albany: James B. Lyon, Printer, 1893.